

# STIC Search Report

# STIC Database Tracking Number: 93367

TO: Jonathan M Foreman

Location: CP2-4B24

Wednesday, May 07, 2003

Case Serial Number: 09/973,568

From: Julie Walko

Location: EIC 3700

CP2-2C08

Phone: 305-8587

Julie.walko@uspto.gov

# Search Notes

Johnny:

Attached are the results of your request regarding an anaesthesia control system.

You'll find two sets of each prior art search (e.g., 2 full-text patent searches) – one for "coarseness", the other for "frequency & amplitude". I believe the only relevant citations that appear before your priority date are in the biblio NPL related to frequency & amplitude. I marked that packet with a yellow stickie and marked some of those with blue stickies. Although I marked some, I recommend you review the entire packet.

I also found a set of references on the Internet that may or may not be worth anything. I highlighted those that deal with AEP and were published before your priority date.

If you have any questions or would like this search reworked in any way, please do not hesitate to contact me at the number or address listed above.



# SEARCH REQUEST FORM

# Scientific and Technical Information Center

Requester's Full Name:	N Francisco		25 _ 1/1/02	
Art Unit: 3736 Phone	Number 30 5 - 539	Serial Number:		
Mail Box and Bldg/Room Locatio	n: CP2-4824 Re	esults Format Preferred (	circle): PAPER DISK E-M	- 1 A II
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If more than one search is subn	nitted, please priori *******	tize searches in order	of need.	****
Please provide a detailed statement of the	search topic, and describ	pe as specifically as possible	the subject matter to be searched.	
Include the elected species or structures, utility of the invention. Define any terms	keywords, synonyms, act s that may have a special	ronyms, and registry numbers	i, and combine with the concept of	or
known. Please attach a copy of the cover	sheet, pertinent claims, a	nd abstract.	cievant citations, authors, etc., ii	
Title of Invention: ANAES	THESIA CONFRO	5		
		1.		
Inventors (please provide full names):				
(Si	AVIN N.C GLAST	Jow Kenny	****	
Earliest Priority Filing Date:	09/11/1996		e e e e e e e e e e e e e e e e e e e	"
*For Sequence Searches Only* Please inclu	de all pertinent information	n (parent, child, divisional, or is	ssued patent numbers) along with th	he
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STAFF USE ONLY	Type of Search	Vendors and co	ost where applicable	
Searcher: Juli Walko	NA Sequence (#)	STN		
Searcher Phone #: 305 -858 7	AA Sequence (#)	Dialog		
Searcher Location: (P2-2(08	Structure (#)	Questel/Orbit	A	
Date Searcher Picked Up: 5/6/63	Bibliographic	Dr.Link		
Date Completed: 5/7/03	Litigation			
Searcher Prep & Review Time: 95 m	Fulltext	<del>-</del>		
•	,	Sequence Systems		
Clerical Prep Time:	Patent Family	WWW/Internet		
Online Time: 5000	Other	Other (specify)		

PTO-1590 (8-01)

7/5/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

011790194 \*\*Image available\*\* WPI Acc No: 1998-207104/199818

XRPX Acc No: N98-164483

Anaesthesia control system e.g. of closed loop type - calculates index representative of depth of anaesthesia from EEG amplifier signals derived from head mounted electrodes

Patent Assignee: UNIV GLASGOW (UNIU ); KENNY G N C (KENN-I); MANTZARIDIS H (MANT-I)

Inventor: KENNY G N C; MANTZARIDIS H; KENNY G Number of Countries: 079 Number of Patents: 007

Patent Family:

Pat	cent ramily:								
Pat	ent No	Kind	Date	App	olicat No	Kind	Date	Week	
WO	9810701	A1	19980319	WO	97GB2435	A	19970910	199818	В
ΑU	9742141	Α	19980402	ΑU	9742141	A	19970910	199833	
ΕP	926984	A1	19990707	ΕP	97940234	A	19970910	199931	
				WO	97GB2435	Α	19970910		
NZ	334586	Α	20000929	ΝZ	334586	A	19970910	200060	
				WO	97GB2435	Α	19970910		
MX	9902403	A1	20000301	MΧ	992403	A	19990311	200123	
ΑU	738350	В	20010913	ΑU	9742141	A	19970910	200164	
US	20020117176	A1	20020829	WO	97GB2435	Α	19970910	200259	
				US	99267932	Α	19990311		
				US	2001973568	A	20011009		

Priority Applications (No Type Date): GB 9618998 A 19960911 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9810701 A1 E 89 A61B-005/11

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9742141 A A61B-005/11 Based on patent WO 9810701 EP 926984 A1 E A61B-005/11 Based on patent WO 9810701 Designated States (Regional): AT CH DE DK ES FI GB LI PT SE NZ 334586 A A61B-005/11 Based on patent WO 9810701

MX 9902403 A1 A61B-005/11

AU 738350 B A61B-005/11 Previous Publ. patent AU 9742141 Based on patent WO 9810701

US 20020117176 A1 A61M-016/00 Cont of application WO 97GB2435 Cont of application US 99267932

#### Abstract (Basic): WO 9810701 A

The anaesthesia control system maintains a patient (1) in an unconscious state whilst the patient undergoes surgery. The patient wears a pair of earphones (2) which are driven by a signal generator (3) to sound ''clicks'' of 1 ms duration at a frequency of 6.9 Hz to both ears. A liquid anaesthetic is supplied intravenously to the patient through a tube (4) from a pump (5).

A controller (7) receives an analog signal from an EEG amplifier (8) and generates an anaesthetic depth index for display (7a). The EEG amplifier comprises a medical grade preamplifier (9) the output of which is fed to a main amplifier (10) after filtering. The EEG amplifier is connected to three electrodes (20) which are attached to

the patient's head.

ADVANTAGE - Generates reliable quantitative measure of anaesthetic depth that safely maintains patient in unconscious state without requiring human intervention.

Dwg.1/8

Title Terms: ANAESTHETIC; CONTROL; SYSTEM; CLOSE; LOOP; TYPE; CALCULATE; INDEX; REPRESENT; DEPTH; ANAESTHETIC; EEG; AMPLIFY; SIGNAL; DERIVATIVE;

HEAD; MOUNT; ELECTRODE Derwent Class: P31; P34; P35; S05

International Patent Class (Main): A61B-005/11; A61M-016/00

International Patent Class (Additional): A62B-007/00

File Segment: EPI; EngPI

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Items
Set
                Description
                AU='MANTZARIDIS H':AU='MANTZARIDIS HARALAMBOS'
           3
S1
           12
                E3, E7
S2
            2
                AU='KENNY GAVIN NICHOLSON CLEGHORN'
S3
S4
           14
                S1:S3
S5
            3
                S4 AND (ANAESTHESIA OR ANESTHESIA)
                IDPAT (sorted in duplicate/non-duplicate order)
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               IDPAT (primary/non-duplicate records only)
'S7---
? show files
File 347: JAPIO Oct 1976-2002/Dec (Updated 030402)
         (c) 2003 JPO & JAPIO
File 348:EUROPEAN PATENTS 1978-2003/Apr W04
         (c) 2003 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20030501,UT=20030424
         (c) 2003 WIPO/Univentio
File 350: Derwent WPIX 1963-2003/UD, UM & UP=200328
         (c) 2003 Thomson Derwent
File 371:French Patents 1961-2002/BOPI 200209
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12/5/1 (Item 1 from file: 350) DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

\*\*Image available\*\* 010215912 WPI Acc No: 1995-117166/199516

XRPX Acc No: N95-092449

FM theta-inducing audible sound in brain waves - using modulated wave with very low frequency wave of approx 20 Hertz or less superimposed on audio low-frequency wave

Patent Assignee: HAYASHIBARA K (HAYA-I)

Inventor: MASAKI K; MATSUDA O

Number of Countries: 010 Number of Patents: 010

Datent Family:

Pal	ent ramity	:							
Pat	ent No	Kind	Date	Appli	.cat No	Kind	Date	Week	
ΕP	644525	A2	19950322	EP 94	306755	Α	19940915	199516	В
NO	9403442	Α	19950317	NO 94	3442	Α	19940915	199519	
JΡ	7095682	Α .	19950407	JP 93	3258993	A	19930924	199523	
CA	2131950	Α	19950317	CA 21	.31950	Α	19940913	199524	
EΡ	644525	А3	19951213	EP 94	306755	Α.	19940915	199619	
JΡ	10244004	Α	19980914	JP 93	3258993	A	19930924	199847	
				JP 98	373083	Α	19930924		
JP	10282983	Α	19981023	JP 93	3252124	A	19930916	199902	
				JP 98	346340	Α	19930916		
JΡ	10295818	Α	19981110	JP 93	3258973	Α	19930924	199904	
				JP 98	346345	A	19930924		
US	5954630	A	19990921	US 94	1305834	A	19940914	199945	
JP	3194187	B2	20010730	JP 93	3252124	A	19930916	200146	
				JP 98	346340	A	19930916		

Priority Applications (No Type Date): JP 93258993 A 19930924; JP 93252124 A 19930916; JP 93258973 A 19930924; JP 9873083 A 19930924; JP 9846340 A 19930916; JP 9846345 A 19930924

Cited Patents: No-SR.Pub; 1.Jnl.Ref; FR 2569348; US 4227516; US 5123899 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

A2 E 20 G10K-015/02 EP 644525

Designated States (Regional): DE FR GB IT NL SE

NO 9403442 A61B-005/12 Α JP 7095682 20 H04R-003/00 Α G10K-015/02 CA 2131950 Α А3 EP 644525 G10K-015/02 12 A61M-021/02 JP 10244004 Α JP 10282983 9 G10K-015/04 Α

Div ex application JP 93258993 Div ex application JP 93252124 JP 10295818 12 A61M-021/02 Div ex application JP 93258973 Α

US 5954.630 A61M-021/00 Α JP 3194187 9 H04R-003/04 B2

Div ex application JP 93252124 Previous Publ. patent JP 10282983

# Abstract (Basic): EP 644525 A

The audible sound of modulated wave includes a very low- frequency wave of approx 20 Hertz or lower which is superimposed on an audio low-frequency wave which simulates FM theta in human brain

The method further involves amplitude modulating an audio lowfrequency with a very low-frequency wave of less than 20 Hertz, and subjecting to electro-acoustic transduction the obtained electrical signal which contains a modulated wave where the very low frequency signal is superimposed on the audio low-frequency wave.

USE/ADVANTAGE - Artificially generating FM theta in human brain waves to improve attention and concentration during mental tasks when auditorialy administered.

Dwa.1/8

Title Terms: FM; THETA; INDUCE; AUDIBLE; SOUND; BRAIN; WAVE; MODULATE; WAVE; LOW; FREQUENCY; WAVE; HERTZ; LESS; SUPERIMPOSED; AUDIO; LOW; FREQUENCY; WAVE

Derwent Class: P31; P34; P86; S05; W04

International Patent Class (Main): A61B-005/12 ; A61M-021/00; A61M-021/02;

G10K-015/02; G10K-015/04; H04R-003/00; H04R-003/04

International Patent Class (Additional): A61B-008/00; A61N-005/00

File Segment: EPI; EngPI

#### 12/5/2 (Item 2 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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004325110

WPI Acc No: 1985-151988/198525

XRPX Acc No: N85-114582

Oxygen intoxication diagnosis - by over 30 per cent increase in nystagmic reaction to caloric stimulation of vestibular apparatus

Patent Assignee: BELO NEUROLOGY RES (BNEO-R); MINSK CLINIC HOSPITAL

(MICL-R)

Inventor: ANTONOV I P; SHALKEVICH V B; SKLYUT I A
Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week SU 1128911 A 19841215 SU 3528291 A 19821223 198525 B

Priority Applications (No Type Date): SU 3528291 A 19821223

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

SU 1128911 A 2

Abstract (Basic): SU 1128911 A

The condition of the vestibular apparatus is determined before treatment by caloric testing. The posterior superior wall of the external **auditory** meat is irrigated for 40 sec. The otocalorimeter used for the test should be an ultra thermostat with rubber tubes with tips attached to its output pipes. The caloric test is performed with the patient seated in a special chair. Electro-nystagmic recording is performed using a 4-channel **electroencephalograph**.

The head of the patient is bent aside to a 60 degree angle. The electrodes are applied bitemporally near the outer edge of the eye. The instrument used is calibrated, which makes it possible to calculate the amplitude of nysteagmus and angular speed of the slow phase. A strong nystagmic reflex response is indicated when there is an increase in the time of nystagmic reaction its amplitude slow phase angular speed and the degree of nystagmus.

USE - For early detection of oxygen intoxication. Bul.46/15.12.84 Dwg.0/0

Title Terms: OXYGEN; INTOXICATION; DIAGNOSE; PER; CENT; INCREASE; REACT; CALORIC; STIMULATING; VESTIBULAR; APPARATUS

Derwent Class: P31

International Patent Class (Additional): A61B-010/00

File Segment: EngPI

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Set
         Items
                 Description
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S1
           347
                 AUDIO? OR AUDITORY OR HEARING OR AURAL? OR SOUND? ?
S2
        306134
                 ELECTROENCEPHALOGRA? OR ELECTRO() ENCEPHALOGRA? OR EEG OR B-
s3
          1890
              RAIN(2N)WAVE? ?
S4
            63
                 AEP
S5
        169475
                 AMPLITUD? OR LOUD?
S6
       2195113
                 FREQUENC? OR SPEED? ? OR RATE? ?
S7
           285
                 S1(3N)S2 OR S2(S)S3 OR S4
S8
             5
                 S5(5N)S6 AND S7
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                 S8 NOT COARS?
S10
                 S9 AND IC=A61B
                 IDPAT (sorted in duplicate/non-duplicate order)
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File 347: JAPIO Oct 1976-2002/Dec(Updated 030402)
          (c) 2003 JPO & JAPIO
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200329
          (c) 2003 Thomson Derwent
File 371:French Patents 1961-2002/BOPI 200209
          (c) 2002 INPI. All rts. reserv.
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Biblio patents -

12/5/1 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

012880842 \*\*Image available\*\*
WPI Acc No: 2000-052676/200004

XRPX Acc No: N00-041119

Evoked response audiometer for diagnosing deafness in children at

early stage

Patent Assignee: UNIV MELBOURNE (UYME )

Inventor: COHEN L T; PARKER J C; RICKARDS F W Number of Countries: 087 Number of Patents: 004

Patent Family:

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Patent No	Kind	Date	Appl	icat No	Kind	Date	Week	
WO 9953839	A1	19991028	WO 9	9AU303	Α	19990422	200004	В
AU 9933991	A	19991108	AU 9	9933991	Α	19990422	200014	
EP 1073369	A1	20010207	EP 9	9915366	A	19990422	200109	
			WO 9	9AU303	A	19990422		
US 6406439	В1	20020618	WO 9	9AU303	Α	19990422	200244	
			US 2	2000673233	Α	20001201		

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Priority Applications (No Type Date): AU 983137 A 19980422

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9953839 A1 E 30 A61B-005/12

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

AU 9933991 A

Based on patent WO 9953839

EP 1073369 A1 E A61B-005/12 Based on patent WO 9953839

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

US 6406439 B1 A61B-005/00 Based on patent WO 9953839

Abstract (Basic): WO 9953839 A1

NOVELTY - The audiometer supplies an auditory stimulus signal whose carrier **frequency** is modulated, to the patient for predetermined time period. The brain **potential** signals **evoked** by the **auditory** signal, are sampled and analyzed.

DETAILED DESCRIPTION - The auditory signal is presented long enough to enable phase locked, steady state potentials to be evoked in the patient's brain. The audiometer analyzes the brain potentials and determines whether phase locking of brain potentials to the auditory signal has occurred. Either of AM and FM is delayed with respect to the other, before the auditory signal is supplied to the patient, to enhance the **evoked response** to the **auditory** stimulus. An INDEPENDENT CLAIM is also included for the method of testing hearing impairment.

 $\ensuremath{\mathsf{USE}}$  - In diagnosis of hearing impairment of children at early stage.

ADVANTAGE - Achieves enhanced response which is greater than that obtainable from stimulus with AM or FM alone. Obtains hearing threshold value that is close to true behavioral hearing threshold of the patient.

DESCRIPTION OF DRAWING(S) - The figure shows a graph of vector diagram showing **amplitude** versus phase, representing the response evoked in a patient.

pp; 30 DwgNo 12/17

Title Terms: RESPOND; AUDIOMETER; DIAGNOSE; CHILD; EARLY; STAGE

Derwent Class: P31; S05

International Patent Class (Main): A61B-005/00; A61B-005/12

File Segment: EPI; EngPI

#### 12/5/2 (Item 2 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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010215912 \*\*Image available\*\*
WPI Acc No: 1995-117166/199516

XRPX Acc No: N95-092449

FM theta-inducing audible sound in brain waves - using modulated wave with very low frequency wave of approx 20 Hertz or less superimposed on audio low-frequency wave

Patent Assignee: HAYASHIBARA K (HAYA-I)

Inventor: MASAKI K; MATSUDA O

Number of Countries: 010 Number of Patents: 010

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 644525	A2	19950322	EP 94306755	Α	19940915	199516	В
NO 9403442	Α	19950317	NO 943442	A	19940915	199519	
JP 7095682	Α	19950407	JP 93258993	A	19930924	199523	
CA 2131950	A	19950317	CA 2131950	A	19940913	199524	
EP 644525	<b>A</b> 3	19951213	EP 94306755	A	19940915	199619	
JP 10244004	Α	19980914	JP 93258993	Α	19930924	199847	
			JP 9873083	A	19930924		
JP 10282983	Α	19981023	JP 93252124	A	19930916	199902	
			JP 9846340	A	19930916		
JP 10295818	Α	19981110	JP 93258973	A	19930924	199904	
			JP 9846345	Α	19930924		
US 5954630	A	19990921	US 94305834	A	19940914	199945	
JP 3194187	B2	20010730	JP 93252124	Α	19930916	200146	
			JP 9846340	Α	19930916		

Priority Applications (No Type Date): JP 93258993 A 19930924; JP 93252124 A 19930916; JP 93258973 A 19930924; JP 9873083 A 19930924; JP 9846340 A 19930916; JP 9846345 A 19930924

Cited Patents: No-SR.Pub; 1.Jnl.Ref; FR 2569348; US 4227516; US 5123899 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes EP 644525 A2 E 20 G10K-015/02

Designated States (Regional): DE FR GB IT NL SE

A61M-021/00

9 H04R-003/04

A61B-005/12 NO 9403442 Α JP 7095682 20 H04R-003/00 Α CA 2131950 G10K-015/02 Α EP 644525 G10K-015/02 A3 JP 10244004 12 A61M-021/02 Div ex application JP 93258993 Α JP 10282983 Div ex application JP 93252124 9 G10K-015/04 Α JP 10295818 12 A61M-021/02 Div ex application JP 93258973 Α

> Div ex application JP 93252124 Previous Publ. patent JP 10282983

#### Abstract (Basic): EP 644525 A

Α

B2

US 5954630

JP 3194187

The audible sound of modulated wave includes a very low- frequency wave of approx 20 Hertz or lower which is superimposed on an audio low-frequency wave which simulates FM theta in human brain waves.

The method further involves amplitude modulating an audio low-

frequency with a very low- frequency wave of less than 20 Hertz, and subjecting to electro-acoustic transduction the obtained electrical signal which contains a modulated wave where the very low frequency signal is superimposed on the audio low- frequency wave.

USE/ADVANTAGE - Artificially generating FM theta in human brain waves to improve attention and concentration during mental tasks when auditorialy administered.

Dwg.1/8

Title Terms: FM; THETA; INDUCE; AUDIBLE; SOUND; BRAIN; WAVE; MODULATE; WAVE; LOW; FREQUENCY; WAVE; HERTZ; LESS; SUPERIMPOSED; AUDIO; LOW;

FREQUENCY; WAVE
Derwent Class: P31; P34; P86; S05; W04

International Patent Class (Main): A61B-005/12; A61M-021/00; A61M-021/02;

G10K-015/02; G10K-015/04; H04R-003/00; H04R-003/04

International Patent Class (Additional): A61B-008/00 ; A61N-005/00

File Segment: EPI; EngPI

#### 12/5/3 (Item 3 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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010097923 \*\*Image available\*\*
WPI Acc No: 1994-365636/199445

Related WPI Acc No: 1995-160672; 1996-009720

XRPX Acc No: N94-286361

Multi-faceted electroencephalographic response analysis method - detecting concealed information in brain by presenting stimuli to subject and recording and analysing multiple features of brain responses

Patent Assignee: FARWELL L A (FARW-I); CONTE F L (CONT-I)

Inventor: FARWELL L A

Number of Countries: 024 Number of Patents: 003

Patent Family:

Patent No Kind Date Applicat No Kind Date Week US 5363858 US 9316215 19941115 19930211 199445 Α Α US 9357607 Α 19930505 19941124 WO 9426162 Α1 WO 94US4851 Α 19940503 199501 AU 9480501 Α 19941212 AU 9480501 Α 19940503 199521

Priority Applications (No Type Date): US 9357607 A 19930505; US 9316215 A 19930211

Cited Patents: US 4949726; US 5170780

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 5363858 A 20 A61B-005/04 CIP of application US 9316215

WO 9426162 A1 E 41 A61B-005/04

Designated States (National): AU BR CA CN JP KR RU

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

AU 9480501 A A61B-005/04 Based on patent WO 9426162

Abstract (Basic): US 5363858 A

The method for multifaceted **electroencephalographic** response analysis (MERA) involves presenting stimuli to a subject through at least one of the visual and **auditory** modalities, recording electrophysiological brain responses indicative of information processing in response to the stimuli, and analyzing multiple features of the brain responses.

The memory and encoding related multifaceted electroencephalographic response (MERMER), a particular brain response

elicited by, and unfolding within two seconds of the onset of, noteworthy stimuli, involving an electrically positive aspect generally maximal parietally followed by an electrically negative aspect with substantial frontal amplitude, and also involving characteristic changes in the frequency domain, is detected, analyzed, and applied for the above stated purposes.

USE/ADVANTAGE - To detect concealed information in brain and communicate directly from brain to computer, and thus to command computers and also to command mechanical devices.

Dwg.6/6

Title Terms: MULTI; FACET; EEG; RESPOND; ANALYSE; METHOD; DETECT; CONCEAL; INFORMATION; BRAIN; PRESENT; STIMULUS; SUBJECT; RECORD; ANALYSE; MULTIPLE; FEATURE; BRAIN; RESPOND

Derwent Class: P31; S05

International Patent Class (Main): A61B-005/04

File Segment: EPI; EngPI

#### 12/5/4 (Item 4 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

008212220 \*\*Image available\*\* WPI Acc No: 1990-099221/199013

XRPX Acc No: N90-076682

Physiological feedback system e.g. neuro-acoustics - senses EEG signals which are converted to music and applies music to condition desired EEG activity

Patent Assignee: NEUROSONICS INC (NEUR-N)

Inventor: KNISPEL J; WRIGHT G

Number of Countries: 016 Number of Patents: 009

Patent Family:

racent raminy:	,							
Patent No	Kind	Date	App	olicat No	Kind	Date	Week	
WO 9001897	Α	19900308	WO	88US2725	A	19880817	199013	В
AU 8823039	Α	19900323	· AU	8823039	A	19880817	199033	
EP 432152	Α	19910619	EΡ	88907930	· A	19880817	199125	
JP 4501214	W	19920305	JP	88507290	Α.	19880817	199216	
AU 636287	В	19930429	AU	8823039	Α	19880817	199324	N
CA 1322026	С	19930907	CA	575147	A	19880818	199342	N
EP 432152	A4	19911030	EΡ	88907930	A	19880000	199519	
EP 432152	В1	19950705	EΡ	88907930	Α	19880817	199531	
			WO	88US2725	Α	19880817		
DE 3854131	G	19950810	DE	3854131	A	19880817	199537	
			EP	88907930	A	19880817		
			, WO	88US2725	Α	19880817		

Priority Applications (No Type Date): WO 88US2725 A 19880817; CA 575147 A 19880818

Cited Patents: No-Citns.; US 3753433; US 3837331; US 3855998; US 4227516; US 4335710; US 4454886

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9001897 A E 67

Designated States (National): AU DK FI JP KR NO

Designated States (Regional): AT BE CH DE FR GB IT NL SE

EP 432152 A

Designated States (Regional): AT BE CH DE DK FI FR GB IT NL SE JP 4501214 W 19 Based on patent WO 9001897

AU 636287 B A61B-005/16 Previous Publ. patent AU 8823039

Based on patent WO 9001897 EP 432152 B1 E 28 A61B-005/04 Based on patent WO 9001897

Abstract (Basic): WO 9001897 A

An EEG-sensing cup electrode (3) is applied to the cranium of the subject (1) at the CZ or P3 location, to reinforce alpha activity and to promote relaxation. In response to the sensed activity, an EEG monitor and channel conditioner (5) derives a signal of **frequency** 0.5 to thirty-five hertz which correponds to brain activity.

The signal is delayed (7) by a delay line of which the delay is regulated by an **EEG** analysis unit (8). The delayed signal is passed to on **EEG** signal analysis processor (9) which produces signals which are converted to music by a **sound** synthesiser (10). The music is applied through headplaces (11) to the ears of the subject. Thus, the music drives the brain into resonance with the music to provide a closed loop.

 $\ensuremath{\mathsf{USE}}$  - To induce controlled physiological and pychological response.

Dwg.1/14

Title Terms: PHYSIOLOGICAL; FEEDBACK; SYSTEM; NEURO; ACOUSTIC; SENSE; EEG; SIGNAL; CONVERT; MUSIC; APPLY; MUSIC; CONDITION; EEG; ACTIVE

Index Terms/Additional Words: EEG

Derwent Class: P31; S05

International Patent Class (Main): A61B-005/04; A61B-005/16

International Patent Class (Additional): A61B-005/0482

File Segment: EPI; EngPI

#### 12/5/5 (Item 5 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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007885908 \*\*Image available\*\*
WPI Acc No: 1989-151020/198921
XRPX Acc No: N89-115377

Audiometer for sleeping subjects - has signal supply controlled by computer programmed to select most appropriate modulation frequency for each stimulus frequency

Patent Assignee: UNIV MELBOURNE (UYME )

Inventor: COHEN L T

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No Kind Applicat No Kind Date Date Week AU 8825091 19890406 AU 8825091 19881111 Α Α 198921 19910611 US 90534356 US 5023783 Α Α 19900608 199126

Priority Applications (No Type Date): AU 875454 A 19870910; AU 8825091 A 19881111

Patent Details:

Patent No Kind Lan Pg Main IPC. Filing Notes

AU 8825091 A 45

Abstract (Basic): AU 8825091 A

The **evoked response audiometer** comprises a device for supplying to a sleeping patient an auditory signal consisting of a carrier **frequency** which is periodically modulated such that the stimulus is **frequency** specific. The auditory signal is presented for a sufficiently extended period of time to enable phase-locked

steady-state potentials to be evoked in the brain.

The brain potential signals evoked by the signal are sampled and analysed to determine whether phase-locking of the potentials to the modulated auditory signal has occurred. The auditory signaller is controlled so that the auditory signals are periodically modulated at **frequencies** in excess of 60 Hz, the **frequency** of modulation being varied in a generally increasing manner for auditory signals of higher **frequencies**.

USE - Diagnosis of deafness in young children. 1/15

Title Terms: AUDIOMETER; SLEEP; SUBJECT; SIGNAL; SUPPLY; CONTROL; COMPUTER; PROGRAM; SELECT; APPROPRIATE; MODULATE; FREQUENCY; STIMULUS; FREQUENCY

Derwent Class: P31; S05

International Patent Class (Additional): A61B-005/12

File Segment: EPI; EngPI

#### 12/5/6 (Item 6 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

007417558 \*\*Image available\*\* WPI Acc No: 1988-051493/198808

XRPX Acc No: N88-039079

Automated visual testing appts. - has controller producing alternating test image for analysis and displays brain potentials using lens system preventing eye adaption

Patent Assignee: WESTINGHOUSE ELECTRIC CORP (WESE ) Inventor: HANES L F; SCHMIDT A L; SHERWIN G W

Number of Countries: 012 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	App	plicat No	Kind	Date	Week	
EP 256738	A	19880224	EP	87306853	Α	19870803	198808	
CN 8705377	Α	19880323					198919	
US 4861154	А	19890829	US	86893758	A	19860806	198944	
US 4953968	A	19900904	US	89327046	Α	19890322	199038	
US 5052401	A	19911001	US	89327047	A	19890322	199142	

Priority Applications (No Type Date): US 86893758 A 19860806; US 89327046 A 19890322; US 89327047 A 19890322

В

Cited Patents: A3...8929; EP 199218; No-SR.Pub; US 3574450; US 4181407 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 256738 A E 50

Designated States (Regional): BE CH DE ES FR GB IT LI NL SE

US 4861154 A 49

Abstract (Basic): EP 256738 A

A patient (27) is presented with a chessboard pattern (20), reversed at a **frequency** of 6Hz, which he views through an optical system (24 to 52) which includes selectable and controllable lenses, filter, and polarizer. Electroencephalographic electrodes pick up the resulting brain potentials, which are amplified (54), the signal at the pattern reversal **frequency** being analysed and displayed.

Eye adaptation to the changing focus chessboard pattern is prevented by the use of a superimposed video (48) reference image placed at infinity by a lens (50) and providing the majority of the image viewed by the patient.

USE/ADVANTAGE - Testing spherical and aspherical refractometry,

contrast and colour sensitivity, acuity, and visual pathway
 disfunction. Avoids need for verbal response from patient
Title Terms: AUTOMATIC; VISUAL; TEST; APPARATUS; CONTROL; PRODUCE;
 ALTERNATE: TEST: IMAGE: ANALYSE: DISPLAY; BRAIN; POTENTIAL; LENS: SYSTE

ALTERNATE; TEST; IMAGE; ANALYSE; DISPLAY; BRAIN; POTENTIAL; LENS; SYSTEM; PREVENT; EYE; ADAPT

Derwent Class: P31; S05

International Patent Class (Additional): A61B-003/02; A61B-005/04

File Segment: EPI; EngPI

#### 12/5/7 (Item 7 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

004061179

WPI Acc No: 1984-206720/198433

XRPX Acc No: N84-154541

Evoked response audiometer using continuous phase-locked potentials - is for early diagnosis of deafness and records potentials of vertex and mastoids of patient

Patent Assignee: UNIV MELBOURNE (UYME )

Inventor: RICKARDS F W

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week US 4462411 A 19840731 US 82337397 A 19820106 198433 B

Priority Applications (No Type Date): AU 817169 A 19810107

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 4462411 A 8

Abstract (Basic): US 4462411 A

The patient is presented with a continuous auditory signal which is amplitude modulated and the resulting brain potentials of the patient ( EEG ) are recorded. The potentials are amplified, filtered and averaged over a number of sampling periods. The averaged signals are analysed to determine the amplitude and phase of the main components of the response to determine whether phase locking has occurred.

The phase of the main components is plotted against variation of the modulating **frequency** and the gradient of the plot provides the latency of the response from which neurological and other factors of significance to the hearing of the patient may be determined. The sound pressure level of the auditory signal is also varied and the **amplitude** and phase of the response plotted against these changes to provide an indication of the sensitivity of the hearing of the patient.

ADVANTAGE - Has improved signal-to-noise ratio and enables measurement of low **frequency** hearing information.

0/5

Title Terms: RESPOND; AUDIOMETER; CONTINUOUS; PHASE; LOCK; POTENTIAL; EARLY; DIAGNOSE; RECORD; POTENTIAL; VERTEX; PATIENT

Derwent Class: P31; S05

International Patent Class (Additional): A61B-005/04

File Segment: EPI; EngPI

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Set
        Items
                Description
                EVOK???(2N)(POTENTIAL? ? OR RESPON???)
S1
          347
                AUDIO? OR AUDITORY OR HEARING OR AURAL? OR SOUND? ?
S2
       305879
                ELECTROENCEPHALOGRA? OR ELECTRO() ENCEPHALOGRA? OR EEG OR B-
S-3
         1887
             RAIN(2N)WAVE? ?
S4
           63
                AEP
                COARSENESS OR (AMPLITUDE? ? AND FREQUEN?)
S5
        56404
S6
          285
                S1(3N)S2 OR S2(S)S3 OR S4
S7
           13
                S6 AND S5
S8
                S7 AND IC=A61B
S9.
            6
                S7 NOT S8
S10
            7.
S11
                 IDPAT (sorted in duplicate/non-duplicate order)
S12
                IDPAT (primary/non-duplicate records only)
? show files
File 347: JAPIO Oct 1976-2002/Dec (Updated 030402)
         (c) 2003 JPO & JAPIO
File 350: Derwent WPIX 1963-2003/UD, UM &UP=200328
         (c) 2003 Thomson Derwent
File 371: French Patents 1961-2002/BOPI 200209
         (c) 2002 INPI. All rts. reserv.
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ft Palents - Freq & Amp.

11/5,K/1 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

(c) 2003 WIPO/Univentio. All rts. reserv.

00966587 \*\*Image available\*\*

#### METHODS AND APPARATUS FOR MONITORING CONSCIOUSNESS

Patent Applicant/Assignee:

COMPUMEDICS LIMITED, 1 Marine Parade, Abbotsford, Victoria 3067, AU, AU (Residence), AU (Nationality), (For all designated states except: US) Patent Applicant/Inventor:

BURTON David, 62 Broadway, Camberwell, Victoria 3124, AU, AU (Residence), AU (Nationality), (Designated only for: US)

ZILBERG Eugene, 6 Holloway Road, Sandringham, Victoria 3191, AU, AU (Residence), AU (Nationality), (Designated only for: US)

Legal Representative:

PHILLIPS ORMONDE & FITZPATRICK (agent), 367 Collins Street, Melbourne, Victoria 3000, AU,

Patent and Priority Information (Country, Number, Date):

Patent: WO 2002100267 A1 20021219 (WO 02100267)
Application: WO 2002AU776 20020613 (PCT/WO AU0200776)

Priority Application: US 2001298011 20010613

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A61B-005/0476

International Patent Class: A61B-005/0478 ; A61B-005/048 ; A61B-005/0482

; A61B-005/0484 ; A61B-005/11

Publication Language: English Filing Language: English

#### English Abstract

The application discloses several inventions as follows: (a) a method of monitoring consciousness of a sentient subject and automatically detecting transition states by obtaining an EEG signal and comparing the two signals to detect the transition and provide a warning signal when the transition occurs; (b) a method or apparatus for processing a non-stationary signal including segments having increasing and decreasing amplitude representing physiological characteristics of a sentient subject by performing syntactic analysis of segments, comparing height, width and error parameters of segments to identify noise segments and replacing noise segments with a straight line before classifying the signal as belonging to one of predefined sleep states; (c) a method of monitoring physiological characteristics of a sentient subject including substitution of a degraded first electrode signal by a second spare electrode signal and providing a warning signal when both signals are degraded; and (d) a capacitive or inductive element sensor for detecting the degree of opening of the eyelid including signal providing means indicative of the relative positions between a component movable with the eyelid and a reference component.

Legal Status (Type, Date, Text)
Publication 20021219 Al With international search report.

Detailed Description

... optimised bi-spectral analysis and optimised AEP analysis. Phase based analysis may be combined with **frequency** band - **amplitude** analysis (spectral analysis) to provide an improvement on phase only or frequency based analysis (refer...the AEPindex is derived for that patient under the most stable and reliable AEP stimulus **frequency** and **amplitude** conditions on an individual patient by patient basis. These same principals can be used for...

#### 11/5,K/2 (Item 2 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

(c) 2003 WIPO/Univentio. All rts. reserv.

00928021 \*\*Image available\*\*

FETAL BRAIN MONITOR

## MONITEUR DE CERVEAU FOETAL

Patent Applicant/Assignee:

NEW YORK UNIVERSITY, 70 Washington Square South, New York, NY 10012, US, US (Residence), US (Nationality)

Inventor(s):

PRICHEP Leslie S, 1010 Orienta Avenue, Mamaroneck, NY 10543, US, Legal Representative:

FAY Patrick J (et al) (agent), Fay Kaplun & Marcin, LLP, 100 Maiden Lane, 17th Floor, New York, NY 10038, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200260313 A2-A3 20020808 (WO 0260313)
Application: WO 2001US51219 20011113 (PCT/WO US0151219)

Priority Application: US 2000716517 20001120

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

- (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
- (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
- (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
- (EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A61B-005/04

International Patent Class: A61B-005/00; A61N-001/08; A61N-001/18;

A61N-001/32; A61N-001/40 Publication Language: English Filing Language: English

#### English Abstract

A fetal Brain Monitor (FBM) (14) utilizes a transducer (10) which is placed on the abdomen (11) of a mother and which is pulsed to generate auditory sounds, i.e., clicks, to provide auditory brainstem evoked responses (BAER) of a fetus within the mother's uterus. The fetus' brain waves are detected by a biosensor (15), amplified (17), converted to digital data (10), and analysed, in one embodiment, using a digital comb filter to improve the signal/noise ratio. The computer system uses QEEG (Quantitative EEG) to compare the data from the fetus to normative data or to prior states of the fetus' own data (self-norm).

Legal Status (Type, Date, Text)
Publication 20020808 A2 Without international search report and to be

Body

republished upon receipt of that report.

Search Rpt 20021107 Late publication of international search report

Republication 20021107 A3 With international search report.

Republication 20021107 A3 Before the expiration of the time limit for amending the claims and to be republished in the

event of the receipt of amendments.

Examination 20030213 Request for preliminary examination prior to end of 19th month from priority date

Detailed Description.

... Brain Monitor (FBM) of the present invention; Figure 2 is a chart showing normal Brainstem Auditory Evoked Response (BAER); and Figure 3 is a chart comparing normal and abnormal BAERs, The details of...driven by the stimulator 13 (stimulus generator) of the FBM (Fetal Brain Monitor) 14, The rate, amplitude 'and duration of the sound pulses are preferably similar to those used for BAER monitoring...

...known, This maximum repetition rate is a limiting factor on the speed with which Brainstem **Auditory Evoked Response** (BAER) might be acquired from a fetus. The transducer may deliver rarifaction, condensation or filtered...

#### 11/5,K/3 (Item 3 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00855579 \*\*Image available\*\*

# SYSTEM AND METHOD FOR OBJECTIVE EVALUATION OF HEARING USING AUDITORY STEADY-STATE RESPONSES

Patent Applicant/Inventor:

JOHN Michael Sasha, Apt. #12, 1420 Dundas Street, Toronto, Ontario M6J 1Y5, CA, CA (Residence), US (Nationality)

PICTON Terence W, 79 Burnett Avenue, Toronto, Ontario M2N 1V4, CA, CA (Residence), CA (Nationality)

Legal Representative:

BERESKIN & PARR (agent), 40 King Street West, 40th Floor, Toronto, Ontario M5H 3Y2, CA,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200187147 A2-A3 20011122 (WO 0187147)

Application: WO 2001CA715 20010518 (PCT/WO CA0100715)

Priority Application: US 2000205469 20000519; US 2000247999 20001114; US 2001287387 20010501

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE

- SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
- (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
- (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
- (EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A61B-005/0484

International Patent Class: A61B-005/12

Publication Language: English

Filing Language: English

#### English Abstract

This invention relates to an apparatus and method for assessing a

had

subject's hearing by recording steady-state auditory responses . The apparatus generates a steady-state auditory evoked potential stimulus, presents the stimulus to the subject, senses potentials while simultaneously presenting the stimulus and determines whether the sensed potentials contain responses to the stimulus. The stimulus may include an optimum vector combined amplitude modulation and frequency modulation signal adjusted to evoke responses with increased amplitudes , an independent amplitude modulation and frequency modulation signal and a signal whose envelope is modulated by an exponential modulation signal. The apparatus is also adapted to reduce noise in the sensed potentials by employing sample weighted averaging. The apparatus is also adapted to detect responses in the sensed potentials via the Phase weighted T-test or Phase zone technique. The apparatus may further perform a number of objective audiological tests. including latency tests, AM/FM discrimination tests, rate sensitivity tests, aided hearing tests, depth sensitivity tests, supra-threshold tests and auditory threshold tests. The apparatus is further adapted to perform multi-modality testing in which more than one sensory modality of the subject is tested simultaneously.

Legal Status (Type, Date, Text)

Publication 20011122 A2 Without international search report and to be republished upon receipt of that report.

Search Rpt 20020314 Late publication of international search report Republication 20020314 A3 With international search report.

#### Detailed Description

... 13 Figure 5a is a plot illustrating how the response to an SSAEP stimulus containing **amplitude** modulated and **frequency** modulated components can be modeled as the vector addition of the SSAEP response to the...

...stimulus; Figure 5b is a graph illustrating how the response to an SSAEP stimulus containing **amplitude** modulated and **frequency** modulated components can be modeled as a sinusoid when the phase of the frequency modulated...

#### 11/5,K/4 (Item 4 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00802666 \*\*Image available\*\*

INTERACTIVE-MODIFIED INTERACTIVE EVENT RELATED POTENTIAL (IMIERP)
POTENTIEL LIE A UN EVENEMENT INTERACTIF MODIFIE PAR INTERACTON (IMIERP)
Patent Applicant/Assignee:

THE STATE OF QUEENSLAND - QUEENSLAND HEALTH, Queensland Health Building, 147-163 Charlotte St, Brisbane, Queensland 4076, AU, AU (Residence), AU (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:

PRICE Gregory, 15 Carbeen Court, Mt Crosby, Queensland 4306, AU, AU (Residence), AU (Nationality)

Patent and Priority Information (Country, Number, Date):

Patent: WO 200135824 A1 20010525 (WO 0135824)

Application: WO 2000AU1374 20001108 (PCT/WO AU0001374)

Priority Application: AU 994048 19991115

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

Badja

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A61B-005/0484

International Patent Class: A61B-005/0482

Publication Language: English Filing Language: English

#### English Abstract

A method modifying a particular electrophysiological feature generated in response to a stimulus is disclosed. The method involves a repeated process of: sampling the brain wave state in order to apply a modifying pulse; modifying the brain wave state to a state more conducive to a required response; sampling the brain wave state in order to apply a response stimulus; applying a stimulus only when the brain wave state substantially meets the preselected response criteria; recording the brain wave activity of the subject subsequent to the application of the stimulus.

Legal Status (Type, Date, Text)
Publication 20010525 Al With international search report.
Publication 20010525 Al Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

#### Claim

... Wright et aL 1990 "Inverse filter computation of the neural impulse giving rise to the auditory evoked potential", Brain Topograpky, 2 293-302). A number of authors have previously described effects of pre... to investigate a mental dysfunction. Suitably the pre-selected criteria include a selected threshold amplitude. frequency distribution and Jor wave shape of background brain wave activity. 5 Preferably, the comparing step employs...stimulus may varied for each stli-nulus application. Variation may involve sensory parameters such as amplitude, period. frequency, or location. The stimulus modality may also be varied (e.g. visual, electrical or TMS...

#### 11/5,K/5 (Item 5 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv.

00522487 \*\*Image available\*\*

PHASE LOCK EVOKED RESPONSE AUDIOMETER
AUDIOMETRE ELECTROPHYSIOLOGIQUE A VERROUILLAGE DE PHASE

Patent Applicant/Assignee:
THE UNIVERSITY OF MELBOURNE,
COHEN Lawrence Thomas,
PARKER John Charles,
RICKARDS Field Winston,
Inventor(s):
COHEN Lawrence Thomas,
PARKER John Charles,

RICKARDS Field Winston,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 9953839 Al 19991028

Application:

WO 99AU303 19990422 (PCT/WO AU9900303)

Priority Application: AU 983137 19980422

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE

ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT

LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT

UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD

RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF

CG CI CM GA GN GW ML MR NE SN TD TG

Main International Patent Class: A61B-005/12

Publication Language: English

#### English Abstract

An evoked response audiometer method and apparatus in which a patient receives an auditory stimulus signal comprising a carrier frequency which is periodically amplitude modulated and frequency modulated whereby the stimulus is at least substantially frequency specific, the brain potential signals of the patient evoked by the auditory signal being sampled to determine whether phase locking to the modulated auditory signal has occurred, the auditory signal being selectively controlled to advance or delay one modulation with respect to the other modulation to cause enhancement of the evoked response to the auditory stimulus (Figs. 12 to 15).

#### Detailed Description

... Nos 4,462,411 (Rickards) and 5,023,783 (Cohen and Rickards), we have response audiometers which use a continuous auditory described evoked tone that is frequency or amplitude modulated, the auditory tone being presented for a sufficiently extended period of time to enable...that the vectorial sum is significantly enhanced beyond the stimulus achieved by the use of amplitude modulation or frequency modulation alone. This enhancement results in a higher detection sensitivity to the stimulus by virtue...

...an improved signal to noise ratio, and consequently, the hearing threshold determined when using the evoked response audiometer much closer to the true behavioural hearing threshold of the patient under test. As a...FM modulation for the time waveforms of Figures 3 and 4 respectively, with the relative amplitudes in dB shown against frequency; Figure 9 illustrates the envelopes for the spectra of AWFM modulation for the time waveforms of Figures 5 and 6 respectively, with the relative amplitudes in dB shown against frequency; Figures 1 0 and 1 1 illustrate the gain or loss expected in dB when...

...16 illustrates graphs of animal tests showing the difference in phase in radians between the auditory stimulus and the evoked response and the frequency of the carrier at a modulation frequency of 140 Hz, and Figure...

11/5, K/6(Item 6 from file: 349) DIALOG(R) File 349: PCT FULLTEXT

(c) 2003 WIPO/Univentio. All rts. reserv.

00420240 \*\*Image available\*\*

#### ANAESTHESIA CONTROL SYSTEM

#### SYSTEME DE REGULATION D'ANESTHESIE

Patent Applicant/Assignee:

THE UNIVERSITY COURT OF THE UNIVERSITY OF GLASGOW,

MANTZARIDIS Haralambos,

KENNY Gavin Nicholson Cleghorn,

Inventor(s):

MANTZARIDIS Haralambos,

KENNY Gavin Nicholson Cleghorn,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 9810701 A1 19980319

Application:

WO 97GB2435 19970910 (PCT/WO GB9702435)

Priority Application: GB. 9618998 19960911

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU

ZW GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES

FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD

TG

Main International Patent Class: A61B-005/11

Publication Language: English

#### English Abstract

An anaesthesia control system and a method of calculating an index representative of the depth of anaesthesia is disclosed. The method comprises subjecting a patient to a repetitive audio stimulus and monitoring auditory evoked potentials (AEP) produced by the patient and then recording these auditory evoked potentials using EEG recording means and providing a signal corresponding to the coarseness of the monitored AEP signal and using this signal as an index indicative of anaesthetic depth. The raw AEP signal is divided into a series of sweeps and each sweep is synchronised with the repetitive audio stimulus and sweeps are recorded in sequence to produce a time averaged sweep from which the anaesthetic index is calculated. The anaesthetic index is constantly updated by repeatedly conducting a successive series of sweeps. The system and index signal can be used as part of an anaesthesia control system for regulating the supply of anaesthetic to the patient to maintain the anaesthetic index at a predetermined level.

#### 11/5,K/7 (Item 7 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00168452 \*\*Image available\*\*

APPARATUS FOR TRANSLATING THE EEG INTO MUSIC
APPAREIL POUR TRANSCRIRE EN MUSIQUE L'ELECTROENCEPHALOGRAMME

Patent Applicant/Assignee:

NEUROSONICS INC,

Inventor(s):

KNISPEL Joel,

WRIGHT Geoffrey,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9001897 A1 19900308

Application: WO 88US2725 19880817 (PCT/WO US8802725)

Priority Application: WO 88US2725 19880817

Designated States: AT AU BE CH DE DK FI FR GB IT JP KR NL NO SE

the forms

Main International Patent Class: A61B-005/04

Publication Language: English

## English Abstract

A method and apparatus for applying a musical feedback signal to the human brain, or any other brain, to induce controllable psychological and physiological responses. A signal representing the ongoing electroencephalographic (EEG) signal of a brain preferably is obtained from the electrode (3) location on the scalp known as CZ or P3 in clinical notation. A signal processor (9) converts the ongoing EEG into electrical signals which are converted into music by synthesizers (10). The music is acoustically fed back to the brain after a time delay (7) calculated to shift the phase of the feedback in order to reinforce specific or desired ongoing EEG activity from the scalp position of interest. The music is comprised of at least one voice that follows the moment-by moment contour of the EEG in real time to reinforce the desired EEG activity. The music drives the brain into resonance with the music to provide a closed loop or physiological feedback effect.

#### Claim

... fourth musical voice comprises means for generating a series of notes in sequence at a **rate** determined by the **amplitude** of said ongoing EEG signal. - 44 22\* A biofeedback apparatus as claimed in Claim 21...

...generating said fourth voice comprises means for not generating said sequence rate at a slower rate unless the amplitude of said ongoing EEG signal exceeds said first threshold level. 23\* A biofeedback apparatus as...second voice comprises means for modulating the pitch of said bell sound around a center frequency in proportion to said amplitude of said ongoing EEG signal. - 45 26a A biofeedback apparatus as claimed in Claim 23...

```
Set
        Items
                 Description
          2453
                 EVOK???(2N) (POTENTIAL? ? OR RESPON???)
S1
S2
       113393
                 AUDIO? OR AUDITORY OR HEARING OR AURAL? OR SOUND? ?
         2903
                 ELECTROENCEPHALOGRA? OR ELECTRO() ENCEPHALOGRA? OR EEG OR B-
S3
              RAIN(2N)WAVE? ?
S4
           768
                 AEP
       114750
                 AMPLITUD? OR LOUD?
S5
S6
       738266
                 FREQUENC? OR SPEED? ? OR RATE? ?
S7
           931
                 S1(3N)S2 OR S2(5N)S3 OR S4
            40
                 S5(5N)S6 AND S7 AND IC=A61B
S8
                 S5(5N)S6(S)S7 AND IC=A61B
S9
S10 7 IDPAT (sorted in duplicate/non-duplicate order)
S117 7 IDPAT (primary/non-duplicate records only)
? show files
File 348: EUROPEAN PATENTS 1978-2003/Apr W04
          (c) 2003 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20030501,UT=20030424
          (c) 2003 WIPO/Univentio
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Fotenti-Coarsness

11/5,K/1 (Item 1 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00880019 \*\*Image available\*\*

#### METHOD AND APPARATUS FOR REDUCING CONTAMINATION OF AN ELECTRICAL SIGNAL

Patent Applicant/Assignee:

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, 1111 Franklin Street, 12th floor, Oakland, CA 94607, US, US (Residence), US (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

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Legal Representative:

CANADY Karen S (agent), Gates & Cooper LLP, Suite 1050, 6701 Center Drive West, Los Angeles, CA 90045, US,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200213689 A2 20020221 (WO 0213689)

Application:

WO 2001US25480 20010815 (PCT/WO US0125480)

Priority Application: US 2000225389 20000815; US 2001267337 20010207

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD

SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

(EA) AM AZ BI NG NZ MD NO 10 IM

Main International Patent Class: A61B-005/00

Publication Language: English Filing Language: English

English Abstract

The method of reducing contamination of electrical signals recorded in the presence of repeated interference contamination comprises obtaining an electrical signal recorded in the presence of a contaminating signal, and detecting a timing signal that occurs at a fixed time point during the electrical signal relative to the onset of the contaminating signal. The electrical signal is digitized, wherein the digitizing begins with the timing signal. A plurality of digitized electrical signals is analyzed, wherein the electrical signals are synchronized with respect to the timing signal, to obtain an estimated contaminating signal that is subtracted from the digitized electrical signal. This method can be used with electrophysiological signals, such as EEG, ECG, EMG and galvanic skin response, and for elimination of noise associated with concurrently used methods such as MRI. The method of noise reduction is applicable to recordings of other electrical signals, including audio recordings.

Legal Status (Type, Date, Text)

Publication 20020221 A2 Without international search report and to be republished upon receipt of that report.

Examination 20020418 Request for preliminary examination prior to end of 19th month from priority date

Detailed Description

... collection that are particularly suited for minimizing artifacts and optimizing signal-tonoise in simultaneous tecording of

Bady

electroencephalographic ( EEG ) and Magnetic Resonance Imaging (MRI) signals, as well as other environments in which electrical signals...

...including eletromyelographic (EMG), electrocardiographic (ECG) or galvanic skin resistance (GSR) signals recording during fMRI and **audio** recordings or transmissions in the presence of 60 Hz noise or electrical transients.

...MRI. Although the examples described in detail herein address the application of thernethod torecording an **EEG** in the presence of fN4RI, those skilled in the art of signal processing will appreciate...

...method of noise -reduction is applicable to -recordings of other electrical signals, including, for example, audiorecotdings, wherein it is desired to -reduce or eliminate one or mote sources of repeated contamination...

...significantly below the cortical surface. For example, attempts to localize the generators of the brainstem **auditory** 5 **evoked response** by simultaneous recording with depth electrodes or correlation with lesions have been conclusive for only...

...1930). By 1930 Berger had described what he called the alpha rhythm, being relatively high **amplitude** oscillations in the -range between 8 and 12 Hz that were associated with drowsiness. It is...that might expose sleep physiology as a marker for these problems. But, due to the **coarse** temporal resolution of PET and SPECT (Nofzinger, Mintun et al. 1998) and the relatively rapid...

#### 11/5,K/2 (Item 2 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00841088 \*\*Image available\*\*

MONITORING AUDITORY EVOKED POTENTIALS

CONTROLE DE POTENTIELS EVOQUES AUDITIFS

Patent Applicant/Assignee:

DANMETER A S, Kildemosevej 13, DK-5000 Odense C, DK, DK (Residence), DK (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

JENSEN Erik Weber, Joan Coromines 37, ES-08395 San Pol De Mar, ES, ES (Residence), DK (Nationality), (Designated only for: US)

Legal Representative:

LARSEN & BIRKEHOLM A S (agent), Skandinavisk Patentbureau, Banegardspaldsen 1, DK-1570 Copenhagen V, DK,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200174248 A1 20011011 (WO 0174248)

Application: WO 2000DK636 20001115 (PCT/WO DK0000636)

Priority Application: DK 2000537 20000331

Designated States: AE AG AL AM AT AT (utility model) AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ CZ (utility model) DE DE (utility model) DK DK (utility model) DM DZ EE EE (utility model) ES FI FI (utility model) GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KR (utility model) KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SK (utility model) SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

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(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
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(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: A61B-005/11

Publication Language: English Filing Language: English

#### English Abstract

A method and an apparatus for extracting signals which are indicative of the level of consciousness of a patient comprises subjecting the patient to a repetitive audio stimulus, monitoring AEP produced by the patient using an autoregressive model with exogenous input, and then calculating an index (AAI), which is displayed or used otherwise, indicative of the anaesthetic depth.

Legal Status (Type, Date, Text)
Publication 20011011 Al With international search report.
Examination 20011108 Request for preliminary examination prior to end of 19th month from priority date

Detailed Description

Monitoring Auditory Evoked Potentials

Bac&ground of the invention

The present invention relates to a method and an apparatus for calculating an index representing the depth of anaesthesia when monitoring the **audio evoked potentials** of a person, and a computer program adapted to perform the method on a computer...

...are delivered to both ears of the patient, and which produces distinctive potentials, known as AEP or auditory evoked potentials in the electroencephalographic ( EEG ) response of the patient. The headphones and the equipment for producing the sound signals, e.g. a signal generator, are not shown in figure 1.

Electrodes, with which...

#### 11/5,K/3 (Item 3 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv.

00554242 \*\*Image available\*\*

#### PHYSIOLOGICAL SENSING DEVICE

#### DISPOSITIF DE DETECTION ET DE MESURE DES PROCESSUS PHYSIOLOGIQUES

Patent Applicant/Assignee:

BRIDGER Keith,
COOKE Arthur V,
KUHN Philip M,
LUTIAN Joseph J,
PASSARO Edward J,
SEWELL John M,
WASKEY Terence V,
RUBBIN Gregg R,
Inventor(s):
BRIDGER Keith,
COOKE Arthur V,

KUHN Philip M, LUTIAN Joseph J, PASSARO Edward J, SEWELL John M, WASKEY Terence V, RUBBIN Gregg R,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200017615 A2 20000330 (WO 0017615)
Application: WO 99US22146 19990923 (PCT/WO US9922146)

Priority Application: US 98100893 19980923

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

Main International Patent Class: A61B-005/00

Publication Language: English

#### English Abstract

A device (1) externally applied to an animal or human (7) to detect effects from internal biological functions.

# Detailed Description

... attached to the body containing a suspended accelerometer element that responds to all magnitudes and **frequencies** of motion. During physical activity, it therefore reflects the level of effort being exerted overwhelming...the wristband. The device registers movement of the outer surface of the radial artery by **frequency** difference between the impinging and reflected signals as the artery expands and contracts during a...

...associated with a major metropolitan hospital. The channels of recorded information included conventional pulsoximetry, various **electroencephalogram** leads for monitoring activity levels in different parts of the brain, three electrocardiogram leads for...

## 11/5,K/4 (Item 4 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00420240 \*\*Image available\*\*

#### ANAESTHESIA CONTROL SYSTEM

# SYSTEME DE REGULATION D'ANESTHESIE

Patent Applicant/Assignee:

THE UNIVERSITY COURT OF THE UNIVERSITY OF GLASGOW,

MANTZARIDIS Haralambos,

KENNY Gavin Nicholson Cleghorn,

Inventor(s):

MANTZARIDIS Haralambos,

KENNY Gavin Nicholson Cleghorn,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9810701 A1 19980319

Application: WO 97GB2435 19970910 (PCT/WO GB9702435)

Priority Application: GB 9618998 19960911

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN

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the tent

MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Main International Patent Class: A61B-005/11

Publication Language: English

## English Abstract

An anaesthesia control system and a method of calculating an index representative of the depth of anaesthesia is disclosed. The method comprises subjecting a patient to a repetitive audio stimulus and evoked potentials ( AEP ) produced by the monitoring auditory patient and then recording these auditory evoked potentials using EEG recording means and providing a signal corresponding to the coarseness of the monitored AEP signal and using this signal as an index indicative of anaesthetic depth. The raw AEP signal is divided into a series of sweeps and each sweep is synchronised with the repetitive audio stimulus and sweeps are recorded in sequence to produce a time averaged sweep from which the anaesthetic index is calculated. The anaesthetic index is constantly updated by repeatedly conducting a successive series of sweeps. The system and index signal can be used as part of an anaesthesia control system for regulating the supply of anaesthetic to the patient to maintain the anaesthetic index at a predetermined level.

#### 11/5,K/5 (Item 5 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00269557

#### THOUGHT ANALYSIS FROM BRAIN WAVE DATA

ANALYSE DE LA PENSEE A PARTIR DE DONNEES EXTRAITES DES ONDES CEREBRALES

Patent Applicant/Assignee:

HUDSPETH William J,

Inventor(s):

HUDSPETH William J,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 9417730 A1 19940818

Application: WO 94US603 19940201 (PCT/WO US9400603) Priority Application: US 9313026 19930203

Designated States: AU BB BG BR BY CA CN CZ FI HU JP KP KR KZ LK LV MG MN MW NO NZ PL RO RU SD SK UA UZ VN AT BE CH DE DK ES FR GB GR IE IT LU MC NL

PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Main International Patent Class: A61B-005/0484

Publication Language: English

#### English Abstract

The subject receives conceptual information from a display screen (1) and background stimuli from a transducer (8). Electrodes (3) pick up the evoked brain waves and pass them to amplifiers (4) and analog-digital converter (5) to condition them for analysis in a computer system (6, 7). The results are then stored on computer disk memory (9) and used to control a peripheral device (10) through an interface (10a).

Detailed Description

- ... stimuli, :Those stimuli are used to stimulate the receptor system of a.subject at different **frequencies**. When the subject focuses attention on one of the panels, the unique **frequency** associated with that panel generates a unique EP waveform from the brain of the subject, The unique **frequency** dependence generated thereby is used to selectively control a hardware device, Different commands may be...be able to conclude that the color red is equivalent when associated with fine or **coarse** checkerboard stimuli, and at the same time the brain must be able to conclude that...
- ...EP signals from that subject; Figure 3 shows three types of NCP systems for presenting auditory, visual, and tactile simulation, and also a system without a NCP; Figures 4A-4J show...
- ...the stimulus set shown in Figure 4B; Figure 7 shows a multi-channel recording of **EEG** (SP) data for a subject who is awake when the eyes of that subject are...

#### 11/5,K/6 (Item 6 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv.

00111767

# BRAIN ELECTRICAL ACTIVITY MAPPING (BEAM) RELEVEMENT TOPOGRAPHIQUE DE L'ACTIVITE ELECTRIQUE DU CERVEAU (BEAM)

Patent Applicant/Assignee:

CHILDRENS HOSP MEDICAL CENTER,

Inventor(s):

DUFFY FRANK H,

CULVER NORMAN D,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 8203977 A1 19821125

Application:

WO 82US633 19820513 (PCT/WO US8200633)

Priority Application: US 81263939 19810515; US 81264031 19810515; US

81264043 19810515

Designated States: AU DE GB JP AT BE CH DE FR GB LU NL SE

Main International Patent Class: A61B-005/04

Publication Language: English

#### English Abstract

Electro-encephalographic (EEG) data from skull electrodes (5) are used to generate a brain electrical activity mapping (BEAM) in the form of topographic maps (48) of the skull displayed as color television images.

## Detailed Description

- ... activity to diagnose brain dysfunction require the skilled neurophysiologist to observe and distinguish time and **frequency** related characteristics of many channels of voltage waveforms derived from an individual's brain and...
- ...the posJC-stimulus response and is also a multiple of the wavelength of the interfering **frequency** described below, the CNV effect is greatly reduced, The second type of interference results from the existence of background noise at certain characteristic **frequencies**, e.g., 10 Hz, which reflect prominent bands of steady-state **brain** wave activity. The major interfering **frequency** of a given subject may be determined by a spectral

analysis of his background **EEG** signal. The interference problem is especially significant in adults with prominent alpha waves and children with prominent slow **brain** wave activity. By including in the time interval between stimuli a second pseudorandom time element whose...

...number loaded into PROM 24 or PROM 19 so that two different stimuli (e.g., auditory and visual) can @R@ ...OMPI be triggered in a preselected order or pattern, with one stimuli being presented more frequently than - the other The result of the recording session is an analog tape of raw EEG and EP voltage data and V@ calibration voltages on 20 channels with trial markers on...

```
Description
        Items
Set
          2453
                EVOK???(2N) (POTENTIAL? ? OR RESPON???)
S1
       113393
                AUDIO? OR AUDITORY OR HEARING OR AURAL? OR SOUND? ?
S2
s3
          2903
                ELECTROENCEPHALOGRA? OR ELECTRO() ENCEPHALOGRA? OR EEG OR B-
             RAIN(2N)WAVE? ?
           768
                AEP
S4
                COARSENESS OR (AMPLITUDE? ? AND FREQUEN?)
         76321
S5
S6
         1105
                 S1(3N)S2 OR S2(S)S3 OR S4
S7
           212
                S6 AND S5
                S7 AND COARSE?
S8
            18
                S8 AND IC=A61B
S9
             6
                IDPAT (sorted in duplicate/non-duplicate order)
S10
Sall 6 IDPAT (primary/non-duplicate records only)
? show files
File 348:EUROPEAN PATENTS 1978-2003/Apr W04
          (c) 2003 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20030501,UT=20030424
```

(c) 2003 WIPO/Univentio

Biblio NPL-Coarsuss

10/5/1 (Item 1 from file: 2)

DIALOG(R) File 2: INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

01889769 INSPEC Abstract Number: C82028322

Title: Synthesis of structural geometry using approximation concepts

Author(s): Kirsch, U.

Journal: Computers and Structures vol.15, no.3 p.305-14

Publication Date: 1982 Country of Publication: UK

CODEN: CMSTCJ ISSN: 0045-7949

approximation concepts for efficient synthesis of Abstract: Some structural geometry are presented. Using the force method of analysis and implicit compatibility conditions, temporarily the neglecting approximate explicit problem (  $\mbox{\bf AEP}$  ) is introduced. Solving the  $\mbox{\bf AEP}$  , a lower bound of the optimum is efficiently obtained. To evaluate the true the implicit problem, the compatibility conditions are of considered for the final geometry of the AEP. Choosing the geometric variables as the independent ones, multilevel solution procedures are proposed. To improve the solution efficiency, the number of independent variables is reduced by geometric variable linking. Also, the number of trial geometries is reduced by introducing a coarse grid in the independent variable space. Several approximation concepts are proposed for solution of the explicit fixed geometry problem. Linear programming models and approximate treatment of the displacement constraints are presented. The proposed solution procedures do not involve multiple implicit analyses of the structure. Numerical examples show that in a variety of structures, where the optimal geometry is not appreciably affected by the compatibility conditions, a single exact analysis is sufficient to evaluate the final optimum. The efficiency of the solution process and the quality of the approximations used are demonstrated. Refs)

10/5/2 (Item 1 from file: 73)

DIALOG(R) File 73: EMBASE

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04904979 EMBASE No: 1992045194

A case of familial essential myoclonus - Electrophysiological study

Araki K.; Kono I.; Ueda Y.; Kashima K.; Shibasaki H.

Third Department of Internal Medicine, Kyoto Prefectural University of

Medicine, Kamikyo-ku, Kyoto 602 Japan

Clinical Neurology (CLIN. NEUROL.) (Japan) 1991, 31/8 (864-868)

CODEN: RISHD ISSN: 0009-918X

LANGUAGE: JAPANESE SUMMARY LANGUAGE: JAPANESE; ENGLISH

A case of familial essential myoclonus was reported with electrophysiological studies. A 58-year-old female presented with involuntary movement (myoclonic jerk) since age 6 years. At the age over 50, she developed difficulty in writing and fine finger movements. Two years ago, the diagnosis of hyperthyroidism was made, but she did not take any anti-thyroid medication. She was admitted to our hospital for further evaluation of myoclonus. On family history, her grandson (4-years-old) had myoclonus. On general physical examination, she showed a diffuse goiter. On neurological examination, she showed spontaneous myoclonus in the face, neck, trunk and the proximal limb muscles, especially in the left upper and right lower extremities. The myoclonus was exacerbated with auditory

stimulation and emotional tension, but there was no temporal relationship between each stimulus and myoclonus. There was no myoclonus during sleep. Finger-to-nose test showed coarse intention myoclonus. Laboratory examinations including lysosomal enzyme assay revealed no abnormalities except for the decrease in total cholesterol (188 mg/dl) and the increase in serum lactate (19.7 mg/dl). The serum concentration of thyroxin was 18.4 mug/dl, that of triidothyronine 3.0 ng/ml, and that of thyroid stimulating hormone (TSH) 0.027 muIU/ml. Anti-thyroglobulin antibody and anti-microsomal antibody were positive (x100, x6400). Neurological laboratory tests were normal including cerebrospinal fluid, peripheral nerve conduction study, electromyogram (EMG), muscle biopsy, cranial computed tomography and magnetic resonance imaging, and positron emission tomography. Electron transport system of the biopsied muscle was normal. So, we made a diagnosis of familial essential myoclonus and hyperthyroidism. In the electrophysiological studies, the electroencephalogram ( EEG ) was within normal limits. The EEG -EMG polygraph demonstrated myoclonic jerks in the face, neck and all extremities, which occurred at rest, and revealed an EMG burst of 40~100 msec in duration, involving different muscles asynchronously. All of the somatosensory evoked potentials, brainstem auditory potentials , and blink reflex were normal in latency and amplitude. Long latency reflexes were not evoked by peripheral nerve stimulation. Tapping of the body did not elicit any myoclonus. From these findings, it is suggested that the myoclonus in this patient might be generated in some subcortical structures in the central nervous system. The myoclonus significantly improved by the administration of clonazepam.

10/5/3 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2003 Elsevier Science B.V. All rts. reserv.

02648894 EMBASE No: 1984167852

Progressive neurologic deterioration and renal failure due to storage of glutamyl ribose-5-phosphate

Williams J.C.; Butler I.J.; Rosenberg H.S.; et al. New England Journal of Medicine ( NEW ENGL. J. MED. ) (United States) 1984, 311/3 (152-155)

A six-year-old boy presented with a history of seizures, progressive neurologic deterioration, and proteinuria. Physical examination revealed mildly coarse facies, failure to thrive, generalized hypotonia with muscle wasting, and optic atrophy; there was no organomegaly. The family history suggested an X-linked recessive inheritance. The electroencephalogram, electroretinogram, evoked potentials, and computed axial tomography of the brain were abnormal. Urine oligosaccharide chromatography, urine amino acids and organic acids, and results of leukocyte and fibroblast lysosomal-enzyme assays for the known storage diseases were normal; however, conjunctival and renal biopsy specimens contained enlarged lysosomes on electron microscopy. The patient had progressive neurologic deterioration and died of renal failure at eight years of age. A compound identified as glutamyl ribose-5-phosphate was purified from the brain (0.96 mumol per gram, wet weight) and kidney (0.60 mumol per gram, wet weight). This compound is the linkage group in ADP-ribosylation of proteins, an important regulatory process in gene expression and DNA repair. We believe this new disorder represents a glycoproteinosis that results in the cytoplasmic storage of glutamyl

ribose-5-phosphate.

#### MEDICAL DESCRIPTORS:

\*kidney failure; \*proteinuria; \*seizure autopsy; boy; computer assisted tomography; electroencephalography; electron microscopy; electroretinography; evoked auditory response; evoked brain stem response; evoked visual response; neurologic disease; central nervous system; visual system; histology; preschool child; etiology; diagnosis; therapy; case report; human; kidney; nervous system; computer analysis; peripheral nervous system

10/5/4 (Item 3 from file: 73)

DIALOG(R) File 73: EMBASE

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01048744 EMBASE No: 1978177098

Assessment of the functional condition of the cortical parts of the auditory analyzer in children with hearing disturbances

Belov I.M.; Zaitseva L.M.; Khrizman T.P.; Lomovatskaya L.G. Probl. Lab. Vosstanovl. Slukha Rechi, I Med. Inst., Leningrad Russia Vestnik Oto-Rino-Laringologii ( VESTN. OTO-RINO-LARINGOL. ) (Russia) 1977, 39/5 (9-13)

LANGUAGE: RUSSIAN SUMMARY LANGUAGE: ENGLISH

The work was aimed at ascertaining possibilities of intercentral relations of biopotentials of the projection and associated zones of the brain in children with **hearing** impairment. Children aged from 5 to 7 years (23) with hearing impairment were examined; 17 healthy children of the same age served as controls. EEG was recorded from 8 symmetrical zones of the brain: frontal, motor, inferior parietal, and temporal on the 'Orion' electroencephalograph at the state of restful awakening (with open eyes). In comparison with normal children, the age pattern of the EEG was altered in children with impaired hearing , although there were no coarse pathological signs. Low-amplitude, dysrhythmic EEG, particularly in the inferior parietal and the temporal zones were observed. A correlation EEG analysis showed the level of space synchronization to be lower in children with hearing defects than in healthy ones. The greatest number of correlations with other centers was possessed by those motor zones which established synchronous, synphasic interrelations with the frontal zones. Characteristic of these children was an almost complete absence of intercentral interrelations of biopotentials of the projection temporal zones with other areas of the cortex, particularly, with the associated inferior parietal zones. It is supposed that these interrelations were of significance in the functional system of the centres realizing the hearing functions.

#### MEDICAL DESCRIPTORS:

\* auditory system; \*electroencephalography; \* evoked response audiometry

10/5/5 (Item 4 from file: 73)

DIALOG(R) File 73: EMBASE

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00525187 EMBASE No: 1976080737

# Disinhibitory influence of the activating system due to its artificial excitation initiated in different points of the brain (Russian)

Andreeva V.N.; Irgashev M.S.; Kratin Yu. G.
Pavlov Inst. Physiol., USSR Acad. Sci., Leningrad Russia
Zhurnal Vysshei Nervnoi Deyatelnosti Imeni I.P. Pavlova ( ZH. VYSSH.
NERVN. DEYAT. IM. I. P. PAVLOVA ) 1975, 25/2 (332-341)
LANGUAGE: RUSSIAN

EEG activation can be produced by electrical stimulation of some cortical points with the same threshold current strength as by stimulation of the midbrain RF and thalamic centrum median (CM). Near threshold stimulation of all these points acting simultaneously with inhibitory conditioned signals does not disturb the effector inhibition but displays an EEG difference between negative signals: the fine differentiation sound evokes considerable EEG desynchronization, while the coarse one does not change the background rhythms. The same stimulation combined with a positive signal, which has been made ineffective by successive inhibition or extinction, reestablishes the intensive EEG activation in response to this signal and the effector conditioned reflex. Therefore a moderate additional stimulation of the activating points in the cortex, RF and CM has a disinhibitory influence. When initiated in the cortex, this influence may be transmitted from the cortical point to other parts of the brain along transcortical and corticofugal connections. (18 references are cited)

### 10/5/6 (Item 5 from file: 73)

DIALOG(R) File 73: EMBASE

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00112552 EMBASE No: 1974102651

# Determinants of the post stimulus resolution of contingent negative variation (CNV)

Wilkinson R.T.; Spence M.T.

MRC Appl. Psychol. Unit Annexe, Cambridge United Kingdom Electroencephalography and Clinical Neurophysiology (ELECTROENCEPHALOGR. CLIN. NEUROPHYSIOL.) 1973, 35/5 (503-509)

An experiment was made involving 6 female subjects. They heard a warning click (W) followed by one of two tones (S1), followed again by one of two clicks (S2). In half the trials they made a choice key pressing response (R) to the tone; in half no response (NR) was required. Within these trials they made a further choice response to the click (S2) if the tone at S1 was high tone (continued expectancy, CE) but not if S1 was a low tone (noncontinued expectancy, NCE). The CNV present at S1 was resolved towards the baseline whether or not an overt response had to be made to S1 and whether or not the information in S1 counselled continued expectancy. With CE this CNV resolution was arrested when a further CNV developed in preparation for S2. This created a sharp divergence of the CE trace from the NCE trace, the latter continuing its positive going resolution. The latency at this point of CE/NCE divergence correlated positively with motor reaction time to S1 and was delayed when a motor response was required to S1. The cause of return of CNV to baseline is neither due to the overt response nor the final decision concerning the nature of the stimulus, but probably to the first coarse identification of the stimulus as one of a relevant class of stimuli. The point of CE/NCE divergence may mark the completion of a second stage of finer analysis and may be an EEG index of final decision latency. Inter individual variance in reaction time is

confined mainly to transactions before this point in processing. The need to make an overt response may absorb processing capacity and therefore delay decision time.

MEDICAL DESCRIPTORS:

\*conditioning; \*contingent negative variation; \*electroencephalography; \* evoked auditory response

10/5/7 (Item 1 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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07642649 93097848 PMID: 1334316

An analysis of the level and bilateralness of disorders of the brain stem auditory evoked potential in tumors of the posterior cranial fossa with different locations]

Analiz urovnia i bilateral'nosti narushenii stvolovogo slukhovogo vyzvannogo potentsiala pri opukholiakh zadnei cherepnoi iamki razlichnoi lokalizatsii.

Sumskii L I; Kuksova N S

Zhurnal voprosy neirokhirurgii imeni N. N. Burdenko (RUSSIA) Jul-Oct 1992, (4-5) p9-11, ISSN 0042-8817 Journal Code: 7809757

Languages: RUSSIAN

potential was used in the The method of stem auditory evoked examination of 39 patients with tumors of the posterior cranial fossa of various localization. The time indices of the response were analysed: the peak latency of components I, III, and V and interpeak I-III, III-V, and I-V intervals. The most coarse disorders were revealed in patients with tumors of the cerebellopontile angle (100% of cases), which were clearly lateralized. Changes of stem auditory evoked potential in patients with cerebellar tumors were encountered somewhat less frequently (in up to 90%) and the response was asymmetric in most cases. As compared to the first group, however, a high percentage of disorders of component V to stimulation of the intact side was noted. Among patients with median localization of the tumor (vermis cerebelli, floor of fourth ventricle) changes were found in 62% of cases (component V). No authentic differences to stimulation of different sides were revealed. The authors discuss problems on the levels of occurrence of disorders of stem auditory evoked potential in patients with lesions of posterior cranial fossa structures.

10/5/8 (Item 2 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

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05343656 87021790 PMID: 3766010

[Clinico-physiologic characteristics of brain stem disorders in comatose states]

Kliniko-fiziologicheskaia kharakteristika stvolovykh narushenii pri komatoznykh sostoianiiakh.

Shakhnovich A R; Dubova S B; Belousova O B; Razumovskii A E; Tomas D G Zhurnal voprosy neirokhirurgii imeni N. N. Burdenko (USSR) Jul-Aug 1986 (4) p7-14, ISSN 0042-8817 Journal Code: 7809757

Languages: RUSSIAN

Informative signs for classification of disorders of consciousness were

distinguished on the basis of clinico-physiological comparisons. Coma is characterized by failure of attempts to wake the patient, deep coma by muscular atonia, and protective inhibition coma by bilateral mydriasis. Opening of the eyes in response to a sound or pain is characteristic for the apallic syndrome, carrying out of instructions for deep stunning, answering questions for stunning. Clear consciousness is characterized by the patient's ability to orientate. Protective inhibition coma is always characterized by coarse changes of short latent evoked potentials in response to acoustic stimulation.

Tags: Human

Descriptors: \*Brain Stem--physiopathology--PP; \*Coma--diagnosis--DI; Brain Injuries--complications--CO; Cerebral Hemorrhage--complications--CO; Coma--classification--CL; Coma--physiopathology--PP; Evoked Potentials, Auditory; Evoked Potentials, Somatosensory; Intracranial Aneurysm --complications--CO; Neurologic Examination; Syndrome

Record Date Created: 19861107
Record Date Completed: 19861107

#### 10/5/9 (Item 3 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

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04378351 84020054 PMID: 6624359

Brain stem auditory evoked potentials in tumors of the posterior parts of the 3d ventricle and pineal gland]

Stvolovye vyzvannye potentsialy na akusticheskuiu stimuliatsiiu pri opukholiakh zadnikh otdelov III zheludochka i shishkovidnoi zhelezy.

Dubova S B; Klumbis E L; Milovanova L S

Zhurnal voprosy neirokhirurgii imeni N. N. Burdenko (USSR) Jul-Aug 1983 (4) p7-11, ISSN 0042-8817 Journal Code: 7809757

Languages: RUSSIAN

Dynamic studies (one to six times) of stem generated potentials (SGP) to acoustic stimulation were conducted in 32 patients with tumors of the posterior parts of the third ventricle and the pineal gland. In tumors of this localization, the SGP underwent pathological changes in 90% of cases: the response latency increased, its amplitude reduced more or less coarsely (even to complete abaissement of the peaks), and the time intervals between the peaks increased. Dynamic studies of SGP to acoustic stimulation may help the surgeon in making the diagnosis and prove valuable in appraising the functional state of the stem structures in the postoperative period.

Tags: Female; Human; Male

Descriptors: Brain Neoplasms--diagnosis--DI; \*Brain Stem--physiopathology --PP; \*Cerebral Ventricle Neoplasms--diagnosis--DI; \* Evoked Potentials, Auditory; \*Pineal Gland; Adolescent; Adult; Brain Neoplasms--surgery--SU; Cerebral Ventricle Neoplasms--surgery--SU; Child; Child, Preschool; Middle Age; Postoperative Period; Reaction Time--physiology--PH

Record Date Created: 19831123
Record Date Completed: 19831123

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Set
        Items
                Description
                EVOK???(2N) (POTENTIAL? ? OR RESPON???)
S1
       266324
                AUDIO? OR AUDITORY OR HEARING OR AURAL? OR SOUND? ?
S2
       968854
S3
       295535
                ELECTROENCEPHALOGRA? OR ELECTRO() ENCEPHALOGRA? OR EEG OR B-
             RAIN(2N)WAVE? ?
S4
         5510
                AEP
S5
       143653
                COARS?
        61381
                S1(3N)S2 OR S2(S)S3 OR S4
S6
S7
           19
                S5 AND S6
           12
                S7 NOT PY>1996
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S9
           12
                S8 NOT PD>19960911
$10 ____ 9
                RD (unique items)
? show files
       2:INSPEC 1969-2003/Apr W4
File
         (c) 2003 Institution of Electrical Engineers
File
       5:Biosis Previews(R) 1969-2003/Apr W4
         (c) 2003 BIOSIS
       6:NTIS 1964-2003/May W1
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         (c) format only 2003 The Dialog Corp.
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         (c) 2003 Elsevier Science B.V.
File 198: Health Devices Alerts (R) 1977-2003/May W1
         (c) 2003 ECRI-nonprft agncy
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
File
      48:SPORTDiscus 1962-2003/Apr
         (c) 2003 Sport Information Resource Centre
File
      71:ELSEVIER BIOBASE 1994-2003/Apr W4
         (c) 2003 Elsevier Science B.V.
      91:MANTIS(TM) 1880-2002/Oct
         2002 (c) Action Potential
File 162:Global Health 1983-2003/Mar
         (c) 2003 CAB International
File 164: Allied & Complementary Medicine 1984-2003/May
          (c) 2003 BLHCIS
File 467:ExtraMED(tm) 2000/Dec
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AMP KERRY

12/3,K/1 (Item 1 from file: 442)

DIALOG(R) File 442: AMA Journals

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00095271

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Increased Rate of P300 Latency Prolongation With Age in SchizophreniaElectrophysiological Evidence for a Neurodegenerative Process (ARTICLE)

O'DONNELL, BRIAN F.; FAUX, STEVEN F.; MCCARLEY, ROBERT W.; KIMBLE, MATTHEW O.; SALISBURY, DEAN F.; NESTOR, PAUL G.; MD, RON KIKINIS; JOLESZ, FERENC A.; SHENTON, MARTHA E. Archives of General Psychiatry July, 1995; Original Article: ps 544

Goodin DS, Squires KC, Henderson BH, Starr A. Age-related variations in 'evoked potentials to auditory stimuli in normal subjects. Electroencephalogr Clin Neurophysiol. 1978;44:447-458.

31.

O'Donnell BF...Each averaged ERP was then digitally low-pass filtered at 16 Hz to attenuate high- **frequency** electromyographic artifact.

P300 latency and **amplitude** were measured at Fz/, Cz/, and Pz/ as the most positive voltage sampled in the...

#### 12/3,K/2 (Item 2 from file: 442)

DIALOG(R) File 442:AMA Journals

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00094261

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Oscillopsia and Vertical Eye Movements in Tullio's Phenomenon (ARTICLE)

COHEN, HELEN; ALLEN, MAJ JOHN R.; CONGDON, SHARON L.; JENKINS, HERMAN A. Archives of Otolaryngology
Apr, 1995; Clinical Note: ot\_459
LINE COUNT: 00229

... immittance measures showed normal middle ear status; acoustic reflexes were consistent with cochlear hearing loss. Auditory brain-stem evoked responses were consistent with peripheral sensitivity loss. Audiometry did not indicate an eighth-nerve or auditory...P<.04). As shown in Figure 4, the velocity varied somewhat with stimulus intensity and frequency. The relationship between eye movement amplitude and intensity of oscillopsia was examined with Spearman rank order correlations. The rather weak result...

#### 12/3,K/3 (Item 3 from file: 442)

DIALOG(R) File 442: AMA Journals

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00055606

'Fatigue' in Patients With Multiple Sclerosis: Motor event-related potentials accompanying the performance of auditory memory tasks (target detection, verbal short-term memory) and...

Archives of Neurology 1992; 49: 517 (8)

...the rested state. We did not change. Brain Potential Recordings Subjects were seated in a **sound** -attenuated room with scalp **electroencephalography** electrodes positioned at /F.sub.z/, /C.sub.z/, /P.sub.z/, /C.sub.3... significantly between the one-and five-item memory loads in distinction to the prolonged scanning **rates** apparent from RT measures. **Amplitude** .--Only the amplitudes of the /P. ...BW, Weiberg H, Ribary U, Cheyne DO, Ancill R. Topographic distribution of the 40 Hz **auditory evoked** -related **potential** in normal and aged subjects. Brain Topogr. 1988;1:117-121. /40/Lang W, Lang...

#### 12/3,K/4 (Item 4 from file: 442)

DIALOG(R) File 442: AMA Journals (c) 2003 Amer Med Assn -FARS/DARS apply. All rts. reserv.

00052598

Auditory P300 and Eye Tracking Dysfunction in Schizophrenic Pedigrees (Article)

Blackwood, Douglas H. R., MRCPsych; St Clair, David M., MRCPsych; Muir, Walter J., MRCPsych; Duffy, John C., MSc Archives Of General Psychiatry 1991; 48: 899 (11)

... had been widely reported as abnormal in schizophrenia. Changes in a variety of measures of **amplitude**, **frequency**, and laterality occur, /19/but they are neither consistent nor specific enough to be of... K Psychiatry. 1986;148:414-420.

24 Roth WT, Cannon EH. Some features of the auditory evoked responses in schizophrenia. Arch Gen Psychiatry. 1972;27:466-471...

#### 12/3,K/5 (Item 5 from file: 442)

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00049720

A Child With an Unusually High-Level Spontaneous Otoacoustic Emission (Article)

Mathis, Alphons, PhD; Probst, Rudolf, MD; Min, Nicola De, MS; Hauser, Rolf, MD
Archives of Otolaryngology-Head & Neck Surgery
1991; 117: 674 (3)

... sound emitting from the left ear canal could be heard with the unaided ear. Click- evoked brain-stem potentials revealed hearing thresholds

on both sides to be within 15 dB hearing level. The parents were reassured ...

...an SOAE of 37 dB SPL at 6.1 kHz. Our report describes a high-frequency SOAE with the remarkable amplitude of 55 dB SPL in one ear of a 3-year-old boy. This represents...

### 12/3,K/6 (Item 6 from file: 442)

DIALOG(R) File 442: AMA Journals

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00046204

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Clinical Experience With Electroneurography in the Pediatric Patient (ORIGINAL ARTICLE)

EAVEY, ROLAND D.; HERRMANN, BARBARA S.; JOSEPH, JANET M.; THORNTON, AARON R

Archives of Otolaryngology

May, 1989; 115: 600-6071989;

LINE COUNT: 00419 WORD COUNT: 05794

... a second attempt. All subsequent patient testing efforts were completed, for an overall successful test **rate** of 95%. Waveform **amplitude** and morphology were consistent with adult values, except in infants. The most clinically helpful use...

... when response amplitude dropped below 100 mu V, several trials were averaged to reduce high- frequency noise. Compound muscle action potential amplitude was defined as the maximum-minimum voltage difference in the 15-ms interval beginning 2...profound anemia. A computed tomographic scan demonstrated increased density in the middle ear. Brain-stem evoked response audiometry findings revealed a conductive loss (25 dB) for that ear. Results of ENOG demonstrated that...

#### 12/3,K/7 (Item 7 from file: 442)

DIALOG(R) File 442: AMA Journals

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00046139

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Middle-Latency Responses; II. Variation Among Stimulation Sites (ORIGINAL ARTICLE)

BURTON, MARTIN J.; MILLER, JOSEF M.; KILENY, PAUL R.

Archives of Otolaryngology

April, 1989; 115: 458-4611989;

LINE COUNT: 00171 WORD COUNT: 02360

... the only mechanism available. In these studies, intact hair cells were present. The low growth **rate** of the **amplitude** /intensity function observed with round-window stimulation may reflect a significant "electrophonic" component to this...

#### CITED REFERENCES:

- ...Rhinol Laryngol 1982;91:285-291.
- 10. Kileny PR, Kemink JL: Electrically evoked middle latency auditory evoked potentials in cochlear implant candidates. Arch Otolaryngol Head Neck Surg 1987;113:1072-1077.

#### 12/3,K/8 (Item 8 from file: 442)

DIALOG(R) File 442: AMA Journals

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00045420

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Neurophysiological Evidence of Auditory Channel Anomalies in Developmental Dysphasia (ORIGINAL CONTRIBUTIONS )

STEFANATOS, GERRY A.; GREEN, GARY G. R.; RATCLIFF, GRAHAM G.

Archives of Neurology

August, 1989; 46: 871-8751989;

LINE COUNT: 00257 WORD COUNT: 03557

ABSTRACT: Steady-state **auditory evoked responses** to frequency-modulated tones were obtained from normal children and two groups of children with...

#### 12/3,K/9 (Item 9 from file: 442)

DIALOG(R) File 442:AMA Journals

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00044669

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# Magnetoencephalography; Applications in Psychiatry (COMMENT)

REEVE, ALISON; ROSE, DOUGLAS F.; WEINBERGER, DANIEL R.

Archives of General Psychiatry

June, 1989; 46: 573-5761989;

LINE COUNT: 00215 WORD COUNT: 02977

...that is thought to be measured, the instrument and its applications, and one of the **auditory evoked responses** that has been successfully recorded by MEG.

Brain electrical activity has traditionally been studied with... discharges and in studies of sensory evoked potentials. Most of what is known about the auditory evoked response has come from study of the electrical auditory evoked potential. The auditory evoked potential is obtained by averaging the electrical activity measured over the head following repeated sound stimuli...

 $\dots$  source. Several stimulus parameters appear to affect the amplitude of the N100 from these sources: **loudness**, **frequency** of the tone, duration, and rate of repetition. Careful studies suggest that this generator

reflects... and to explore whether sensory pathways have specific defects. (Ref. 26) Many components of the **auditory evoked potential** have been studied, from early brain-stem-related potentials to cortical potentials arising after 100...

#### 12/3,K/10 (Item 10 from file: 442)

DIALOG(R) File 442: AMA Journals

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00042760

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Effects of Lidocaine Infusion in Cats After Unilateral Labyrinthectomy (ORIGINAL ARTICLES)

PARNES, STEVEN M.; SPEKTOR, ZORIK; STROMINGER, NORMAN

Archives of Otolaryngology

June, 1988; 114: 653-6561988;

LINE COUNT: 00179 WORD COUNT: 02474

...determined that lidocaine increases axonal and synaptic condition times, evidenced by increased latent periods of **auditory brain** -stem response **waves** in cats. This information was tested on human subjects by Ruth et al, (Ref. 16...

... based on blocking CNS sodium ion channels. (Ref. 17) Our data showed a decrease in **frequency** and **amplitude** of the nystagmus after a systemic injection of lidocaine. This information supports the hypothesis of... CITED REFERENCES:

...1962;71:116-123.

### 12/3,K/11 (Item 11 from file: 442)

DIALOG(R) File 442: AMA Journals

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00035860

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Auditory Brainstem Responses During Systemic Infusion of Lidocaine (ORIGINAL ARTICLE)

JAVEL, ERIC; MOUNEY, DANIEL F.; MCGEE, JOANN; WALSH, EDWARD J.

Archives of Otolaryngology

February, 1982; 108: 71-761982;

LINE COUNT: 00281 WORD COUNT: 03882

... Ref. 12) found, in one of their human subjects, that lidocaine reduced the amplitude of auditory brainstem— evoked response (ABR) wave I (without altering any other waves), and Wilpizeski and Lowry (Ref. 13) found...ie, all interpeak intervals were lengthened. Latent periods shifted systematically as a function of infusion rate, but ABR component amplitudes did not change appreciably. The maximum effect of a given lidocaine infusion rate occurred 60... CITED REFERENCES:

12/3,K/12 (Item 12 from file: 442)

DIALOG(R) File 442: AMA Journals

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00035201

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Properties of the Brain-stem Response Slow-Wave Component; I. Latency, Amplitude, and Threshold Sensitivity (ORIGINAL ARTICLES)

KLEIN, ALAN J.

Archives of Otolaryngology January, 1983; 109: 6-121983;

LINE COUNT: 00294 WORD COUNT: 04063

...typical of an awake, resting state. Subjects with high SWR thresholds had EEGs with large- amplitude, low-frequency activity (subjects D and E) typical of deep sleep (stages 3 and 4). (Ref. 10...

... noticed for other subject. The SWR thresholds measured when subjects were awake (EEG predominantly high- frequency , moderate- amplitude activity) could be 5 to 20 dB less than when measured during sleep (EEG prodominantly low- frequency , high- amplitude activity). Since the fast components of the BSR are well known for their stability regardless... ... is increased. This is most apparent at the higher intensity levels. The

possibility of a **frequency** dependence of SWR **amplitude** was not tested statistically. As with latency, the change in amplitude with change in signal level is greater at low **frequencies** than at high **frequencies**. **Amplitude** tends to increase slightly between 40- to 50-dB SPL and then abruptly increased at...Again, the only significant correlation occurred at 4.0 kHz.

#### COMMENT

In order to estimate **hearing** levels by **evoked potential** techniques it is necessary to know the correspondence one can expect between the evoked potential...

CITED REFERENCES:

...audiometry. Audiology 1979;18:445-461.

#### 12/3,K/13 (Item 13 from file: 442)

DIALOG(R) File 442:AMA Journals

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00035178

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Properties of the Brain-stem Response Slow-Wave Component; II. Frequency Specificity (ORIGINAL ARTICLES)

KLEIN, ALAN J.

Archives of Otolaryngology

February, 1983; 109: 74-781983;

LINE COUNT: 00202 WORD COUNT: 02791

For clinically acceptable estimates of peripheral auditory sensitivity,

an **evoked potential** must possess several characteristics. It should be highly reliable (stable) across repeated measurements, recordable to...

... lessened. After each masked threshold was determined, another control run was taken to recheck response **amplitude**. Masker **frequency** was changed, and the procedure was repeated. Tuning-curve measurements began at masker frequency set... less than 50% reduction at 68 dB. At other masker frequencies above or below signal **frequency**, decreases in response **amplitude** with increases in masker level occur gradually. This was typical for most subjects.

#### 12/3,K/14 (Item 14 from file: 442)

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00030791

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#### Seizures Provoked by Dressing (LETTERS TO THE EDITOR)

CIRIGNOTTA, FABIO; GERVASIO, LAURA

Archives of Neurology

December, 1982; 39: 785-7861982;

LINE COUNT: 00028 WORD COUNT: 00387

...showed marked cerebral atrophy.

On two different occasions, eight-hour polygraphic recordings were obtained under **audiovisual** control. The **EEG** showed symmetrical slow background activity with sporadic discharges of generalized spikes and slow waves.

Every...

... the limbs. Ictal EEG showed a discharge of diffuse fast activity, with progressive slowing in **frequency** and increased in **amplitude** that was followed by diffuse slowing.

The seizures always began 2 to 4s after the...

# 12/3,K/15 (Item 15 from file: 442)

DIALOG(R) File 442: AMA Journals

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Colonometry, Cystometry, and Evoked Potentials in Multiple Sclerosis (ORIGINAL CONTRIBUTIONS)

HALDEMAN, SCOTT; GLICK, MICHAEL; BHATIA, NARENDER N.; BRADLEY, WILLIAM E.; JOHNSON, BONNIE

Archives of Neurology

November, 1982; 39: 698-7011982;

LINE COUNT: 00185 WORD COUNT: 02565

... their examinations. Visual evoked potentials were delayed or absent

bilaterally in all three patients. Brainstem **auditory evoked potentials** were normal or minimally delayed in two patients and abnormal in the third.

Note: This...

... apart with the cathode proximally. The stimulus had a duration of 0.3 ms, a **frequency** of 4.7 Hz, and **amplitude** sufficient to cause a visible twitch in the muscles of the foot. Spinal cord potentials...

#### 12/3,K/16 (Item 16 from file: 442)

DIALOG(R) File 442: AMA Journals

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00030635

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# Evoked Potentials in Olivopontocerebellar Atrophy (ORIGINAL CONTRIBUTIONS )

HAMMOND, EDWARD J.

Archives of Neurology

June, 1983; 40: 366-3691983;

LINE COUNT: 00162 WORD COUNT: 02241

ABSTRACT: Pattern-reveral visual evoked potentials, far-field and cortical somatosensory **evoked potentials**, and **auditory** brain-system potentials were recorded in two patients with olivopontocerebellar atrophy. In one patient, visual...

- ... latencies within normal limits. In the other, more severely afflicted, patient, all visual, somatosensory, and auditory evoked potentials were abnormal. (Arch Neurol 1983;40:366-369)
- ... Fig 3) at the stimulus rate used in routine testing (2/s). At slower stimulus rates , however, the **amplitude** of the N20 and P29 potentials became progressively higher. These results were replicated in three...
- ...also been documented, (Ref. 19) which, if present, could account for the abnormal visual and **auditory evoked potentials**. Demyelination and atrophic changes in the telencephalon have also been reported. (Ref. 6,18) It...

#### 12/3,K/17 (Item 17 from file: 442)

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00030605

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#### Hypoxic-Ischemic Encephalopathy in the Newborn (NEUROLOGICAL REVIEW)

FENICHEL, GERALD M.

Archives of Neurology

May, 1983; 40: 261-2661983;

LINE COUNT: 00359 WORD COUNT: 04967

... wakefulness, irritability, and excessive responsiveness to stimulation. The typical response to stimulation is a low- frequency , high- amplitude

shaking of the limbs and jaw. Jitteriness is commonly associated with a low threshold for...

#### 12/3,K/18 (Item 18 from file: 442)

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00026249

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Relationships Between Psychiatric Diagnosis and Some Quantitative EEG Variables (ORIGINAL ARTICLES)

SHAGASS, CHARLES; ROEMER, RICHARD A.; STRAUMANIS, JOHN J.

Archives of General Psychiatry

December, 1982; 39: 1423-14341982;

LINE COUNT: 00751 WORD COUNT: 10364

... Computer analysis of eyes-open and eyes-closed EEGs (12 leads) provided time series of **amplitude**, **frequency**, and wave-symmetry measures; mean levels and temporal variability indexes were also factor analyzed across...

... amplitude ratios in depressives. (Ref. 19) For patients with neuroses, compared with nonpatients, higher mean **amplitude** and lower **frequency** variability (Ref. 8) were predicted. In addition to testing the replicability of patient-control differences...linked ears. Certain lead locations deviated from the 10-20 system because somatosensory, visual, and **auditory evoked potentials** were recorded from the same leads following the EEG recording; F(3X), F(4X), C...

#### 12/3,K/19 (Item 1 from file: 95)

DIALOG(R) File 95:TEME-Technology & Management (c) 2003 FIZ TECHNIK. All rts. reserv.

# 

Wavelet networks-a new tool for discrimination of EPs in a clinical study Dickhaus, H; Heinrich, H

Biomedical Engineering. Applications Basis Communications, v8, n6, pp579-593, 1996 ISSN: 1016-2356

#### ABSTRACT:

...variability of the recorded EP signals quantification of the averaged sweeps by peak latencies and **amplitudes** for discrimination failed. However, time- **frequency** distributions calculated from wavelet-transformed responses gave reason to apply the authors' approach of WNs... DESCRIPTORS: **AUDITORY EVOKED POTENTIALS**; DISCRIMINANT ANALYSIS; FEATURE EXTRACTION; COMPUTERISED SIGNAL PROCESSING; CLASSIFICATION; SELF ADJUSTING SYSTEMS; COMPARISON OF METHODS; CHILDREN...

#### 12/3,K/20 (Item 2 from file: 95)

DIALOG(R) File 95: TEME-Technology & Management (c) 2003 FIZ TECHNIK. All rts. reserv.

00828707 F94110086947

IFCN recommended standards for brain-stem auditory evoked potentials .
Report of an IFCN committee

(Von der IFCN empfohlene Standards fuer ausgeloeste Gehoerpotentiale im Stammhirn. Bericht eines IFCN Ausschusses)

Nuwer, MR; Aminoff, M; Goodin, D; Matsuoka, S; Mauguiere, F; Starr, A; Vibert, J-F

Electroencephalography and Clinical Neurophysiology, v91, n1, pp12-17, 1994 ISSN: 0013-4694

IFCN recommended standards for brain-stem auditory evoked potentials . Report of an IFCN committee

...DESCRIPTORS: ELECTROENCEPHALOGRAM; BIOELECTRIC POTENTIALS; HEARING --

...SENSE ORGAN; AUDIOMETRY; STIMULATION FREQUENCY; ACOUSTIC STIMULUS; LOUDNESS; SYSTEM OF UNITS; STANDARDISATION; CODE OF PRACTICE

### 12/3,K/21 (Item 1 from file: 149)

DIALOG(R) File 149:TGG Health Wellness DB(SM) (c) 2003 The Gale Group. All rts. reserv.

01479800 SUPPLIER NUMBER: 15250309 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Adverse environmental conditions in the respiratory and medical ICU settings.

Meyer, Thomas J.; Eveloff, Scott E.; Bauer, Mark S.; Schwartz, William A.; Hill, Nicholas S.; Millman, Richard P.

Chest, v105, n4, p1211(6)

April, 1994

PUBLICATION FORMAT: Magazine/Journal ISSN: 0012-3692 LANGUAGE: English

- ... weighted decibel scale was used because of its close relation to the curve that describes **loudness** and **frequency** for the human ear.[21] Calibration with the Model CA250 Precision Calibrator (Larson Davis) was... 1503-06
- [22] Williams HL, Hammack JT, Daly RL, Dement WC, Lubin A. Responses to **auditory** stimulation, sleep loss and the **EEG** stages of sleep. Electroencephalgr Clin Neurophysiol 1964; 16:269-79
  - [23] Zeplin H, McDonald CS...

#### 12/3,K/22 (Item 2 from file: 149)

DIALOG(R) File 149:TGG Health Wellness DB(SM) (c) 2003 The Gale Group. All rts. reserv.

01475669 SUPPLIER NUMBER: 14930016 (USE FORMAT 7 OR 9 FOR FULL TEXT) Neurobehavioral impairment and seizures from formaldehyde.

Kilburn, Kaye H.

Archives of Environmental Health, v49, n1, p37(8)

Jan-Feb, 1994

PUBLICATION FORMAT: Magazine/Journal ISSN: 0003-9896 LANGUAGE: English

... nystagmus with rebound, impaired smooth pursuit, optokinetic nystagmus suggestive of cerebellar-brainstem dysfunction. Visual and auditory evoked potentials were normal.

Patient #4

This 59-y-old retired railroad worker had impaired speech accompanied

. . .

...on the right than the left during walking. Rapid distal fine-finger movements had normal **amplitude** and **speed**. Deep tendon reflexes were moderately active throughout, except for an absent right ankle jerk. Plantar...

12/3,K/23 (Item 3 from file: 149)

DIALOG(R) File 149:TGG Health&Wellness DB(SM)

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01213267 SUPPLIER NUMBER: 09029740

Delayed detection of congenital hearing loss in high risk infants.

Wild, N.J.; Sheppard, S.; Smithells, R.W.; Holzel, H.; Jones, G. British Medical Journal, v301, n6757, p903(3)

Oct 20,1990

...ABSTRACT: signals detected in the brain of the child, who is exposed to sounds of different **frequencies** and **loudness** ( **evoked auditory response** testing). The purpose of this study was to examine the methods used to detect hearing...

CAPTIONS: Onset and severity of hearing loss. (table); Age at first auditory evoked response test. (table); Causes of delayed assessment of hearing. (table)

### 12/3,K/24 (Item 4 from file: 149)

DIALOG(R) File 149:TGG Health&Wellness DB(SM)

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01184119 SUPPLIER NUMBER: 07597787 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Recording and interpretation of cerebral magnetic fields.

Hari, Riitta; Lounasmaa, Olli V.

Science, v244, n4903, p432(5)

April 28,1989

PUBLICATION FORMAT: Magazine/Journal ISSN: 0036-8075 LANGUAGE: English

... fields are not specific to the speech per se but depend on the amount of **frequency** and **amplitude** transients within the modifying sounds.

Studies of Attention

Attention if one of the basic elements...

...sensory-specific projection areas. Recently we have investigated the effects of attentive listening on the **evoked** magnetic **response** in the human **auditory** cortex. The stimuli were five-letter Finnish words, all beginning with a "K" and ending...different cerebral functions. Hemispheric asymmetry has been observed in several studies: the equivalent dipoles of **auditory evoked responses** are, in right-handed subjects, typically 1 to 2 cm posterior in the left to...

12/3,K/25 (Item 5 from file: 149)

DIALOG(R) File 149:TGG Health & Wellness DB(SM)

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01184050 SUPPLIER NUMBER: 07512561 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Detecting childhood hearing loss. (includes related articles)

Cotton, Robin T.; Farrer, Susan M.; Grundfast, Kenneth M.; Stool, Sylvan E. Patient Care, v23, n5, p55(12)

March 15,1989

PUBLICATION FORMAT: Magazine/Journal ISSN: 0031-305X LANGUAGE: English

... performed in a quiet room, but earphones are a practical alternative. An audiogram provides measured **loudness** thresholds at various **frequencies** from 250-8,000 Hz. It requires an investment of \$500-\$800, floor space, and...consultant for the accompanying article. Technology has made testing increasingly practical and accurate.

Brain-stem **auditory evoked response** (BAER) testing requires earphones and electrodes, which are placed on the forehead and behind the

#### 12/3,K/26 (Item 6 from file: 149)

DIALOG(R) File 149:TGG Health & Wellness DB(SM) (c) 2003 The Gale Group. All rts. reserv.

01178255 SUPPLIER NUMBER: 09237258

Electrophysiological effects of fenfluramine or combined vitamin B6 and magnesium on children with autistic behavior.

Martineau, J.; Barthelemy, C.; Roux, S.; Garreau, B.; Lelord, G. Developmental Medicine and Child Neurology, v31, n6, p721(7) Dec,1989

..:ABSTRACT: motor activity, anxiety, and mood and attention disturbances. Effects of both types of treatments on **auditory evoked responses** (AERs), were studied in 12 children (nine boys, three girls, aged four to six years...

...increased at the O site, then decreased post-trial. The fenfluramine-treated group showed increased **frequency** and **amplitude** of AERs at the C site after 12 weeks of trial, with decreases post-trial... CAPTIONS: Details of children studied. (table); Conditioning method. (graph); AER response - grand average, mean **frequency** and mean **amplitude**. (graph); Decreasing AER variability at O and C sites. (graph)

#### 12/3,K/27 (Item 7 from file: 149)

DIALOG(R) File 149: TGG Health & Wellness DB(SM) (c) 2003 The Gale Group. All rts. reserv.

01057408 SUPPLIER NUMBER: 02640958 (USE FORMAT 7 OR 9 FOR FULL TEXT) Schizophrenia: a neurophysiological evaluation of abnormal information processing.

Baribeau-Braun, Jacinthe; Picton, Terence W.; Gosselin, Jean-Yves Science, v219, p874(3)

Feb 18,1983

PUBLICATION FORMAT: Magazine/Journal ISSN: 0036-8075 LANGUAGE: English

... and targets, the measure of response-set selection. In a similar procedure, we recorded the **auditory evoked potentials** of

schizophrenic subjects, adding a "divided' attention task where subjects had to attend and detect...Electroencepyalogr. Clin. Neurophysiol. 40, 604 (1976)]. They showed that the attention-related changes in N1 amplitude decreased at slower stimulation rates as the subject became less forced to exclude one channel from processing. Our procedure differed...

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Set
         Items
                 Description
                 EVOK???(2N)(POTENTIAL? ? OR RESPON???)
 S1
          4701
                 AUDIO? OR AUDITORY OR HEARING OR AURAL? OR SOUND? ?
 S2
         95502
                 ELECTROENCEPHALOGRA? OR ELECTRO() ENCEPHALOGRA? OR EEG OR B-
 S3
          8562
              RAIN(2N)WAVE? ?
 S4
           191
 S5
         38223
                 .AMPLITUD? OR LOUD?
 S6
        581093
                 FREQUENC? OR SPEED? ? OR RATE? ?
 S7
          1330
                 S1(3N)S2 OR S2(5N)S3 OR S4
            . 9
                  (S5(5N)S6)(S)S7
 S8
            45
                 S5(5N)S6 AND S7
 S9
            45
                 RD (unique items)
 S10
 S11
            28
                 S10 NOT PY>1996
-S12
                 S11 NOT PD>19960911
            27
 ? show files
 File 441:ESPICOM Pharm&Med DEVICE NEWS 2003/Apr W4
          (c) 2003 ESPICOM Bus. Intell.
 File 442:AMA Journals 1982-2003/Sep B1
          (c) 2003 Amer Med Assn -FARS/DARS apply
 File 444: New England Journal of Med. 1985-2003/May W1
          (c) 2003 Mass. Med. Soc.
      95:TEME-Technology & Management 1989-2003/Apr W3
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          (c) 2003 FIZ TECHNIK
       98:General Sci Abs/Full-Text 1984-2003/Mar
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          (c) 2003 The HW Wilson Co.
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          (c) 2003 NewsRx
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 File 370:Science 1996-1999/Jul W3
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FT NPL-Coarsness

# 11/3,K/1 (Item 1 from file: 442)

DIALOG(R) File 442: AMA Journals

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00095560

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Immunological and Clinical Response to Immunosuppressive Treatment inParaneoplastic Cerebellar Degeneration (ARTICLE)

STARK, ERWIN; WURSTER, ULRICH; PATZOLD, UDO; SAILER, MICHAEL; HAAS, JUDITH

Archives of Neurology

Aug, 1995; Original Contribution: ne 814

LINE COUNT: 00306

... of the gynecological tumor. Results of sensory and motor nerve conduction studies and visual and **auditory evoked potentials** were normal. Findings from serological studies for mumps, rubeola, German measles, cytomegalovirus, herpes simplex, varicella...intrathecal synthesis of this antibody (Table 1 and Table 2). Figure 1 shows the typical **coarse** granular stain in the cytoplasm of Purkinje's cells. No reaction was demonstrated in other...

#### 11/3,K/2 (Item 2 from file: 442)

DIALOG(R) File 442: AMA Journals

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00088894

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Autism: Electroencephalogram Abnormalities and Clinical Improvement With Valproic Acid (ARTICLE)

American Journal of Diseases of Children Feb, 1994; The Pediatric Forum: p220 LINE COUNT: 00761

... count, blood chemistry studies, and chromosome analysis, including cultures for fragile X, and results of **audiometric** screening were all normal. During sleep the **EEG** revealed independent, sharp waves in both frontal regions.

At the age of 3 years 2...the cessation of all chemotherapy, she was noted to have a sallow complexion, dry skin, coarse hair, lethargy, and constipation but no goiter; there was marked growth deceleration (0.6 cm...

#### 11/3,K/3 (Item 3 from file: 442)

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00084967

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Oculomotor, Auditory, and Vestibular Responses in Myotonic Dystrophy (ARTICLE)

VERHAGEN, WIM I. M.; BRUGGEN, JAN PIETER TER; HUYGEN, PATRICK L. M.

Archives of Neurology

September, 1992; Original Contribution: p954

LINE COUNT: 00625

 $\dots$ recorded with a tympanometer (Amplaid 720, Amplaid, Milan, Italy) and x-y recorder.

Brain-stem auditory evoked potentials were obtained with a Medelec Sensor AS10/ER94a and Telephonics TDH-49P system (Medelec, Surrey ...his acoustic reflexes. The reflexes were normal in all the other patients measured.

Brain-Stem Auditory Evoked Potentials .--Some absolute wave delay ofthe total I-V complex was found in four of the...This would be combined with the relative preservation of the small muscle fibers (with a coarse 'microscopic aspect) with 'en grappe' nerve endings, which show more tonic activity, as is required...it exists, cannot be due to a defect in that noise-protection mechanism.

Brain-Stem Auditory Evoked Potentials .-- The proportion of our patients with BAEPs showing significant IWD (69%) was higher than that...

#### 11/3,K/4 (Item 4 from file: 442)

DIALOG(R) File 442: AMA Journals

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00032446

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Ophthalmic Manifestations of Infantile Phytanic Acid Storage Disease (CLINICAL SCIENCES)

WELEBER, RICHARD G.; TONGUE, ANDREA C.; KENNAWAY, NANCY G.; BUDDEN, SAROJINI S.; BUIST, NEIL R. M.

Archives of Ophthalmology

September, 1984; 102: 1317-13211984;

LINE COUNT: 00256 WORD COUNT: 03540

... the age of 2.4 years showed prolonged latencies from the right eye. Brain-stem **evoked response audiometry** indicated severe to profound sensorineural hearing loss. An electromyogram was normal at the age of... optic nerve heads were pink, but the retinal vessels were markedly attenuated. There was moderately **coarse** retinal pigment epithelial mottling, with chorioretinal disturbance in the midperiphery and far periphery in both...

### 11/3,K/5 (Item 5 from file: 442)

DIALOG(R) File 442: AMA Journals

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00031669

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Central Nervous System Involvement in Blue-Rubber-Bleb-Nevus Syndrome (OBSERVATIONS)

SATYA-MURTI, SATY; NAVADA, SHIV; EAMES, FREDERICK

Archives of Neurology

November, 1986; 43: 1184-11861986;

LINE COUNT: 00132 WORD COUNT: 01830

... 1). The lesions were raised, purple in color, partially compressible, and painless. Neurologic examination showed **coarse** vertical and rotatory nystagmus in all gazes. On lateral gazes, there was a lag of...

... nucleus area. None of the lesions showed any definite sign of arteriovenous shunting. Brain-stem **auditory evoked potentials** were markedly abnormal, demonstrating the presence of only wave I on left-side stimulation, and the absence of waves IV and V on right-side stimulation. A 16-channel standard **electroencephalogram** was normal.

It was thought that these intracranial lesions were not surgically resectable. He has...

#### 11/3,K/6 (Item 6 from file: 442)

DIALOG(R) File 442: AMA Journals

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00031643

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Neuro-Ophthalmologic Findings in Vestibulocerebellar Ataxia (ORIGINAL CONTRIBUTION)

FARRIS, BRADLEY K.; SMITH, J. LAWTON; AYYAR, D. RAM

Archives of Neurology

October, 1986; 43: 1050-10531986;

LINE COUNT: 00281 WORD COUNT: 03886

... a work-up for an acute vestibulopathy included normal computed tomographic scan of the brain, electroencephalogram, brain-stem auditory - evoked response, and carotid ultrasound. She was given alprazolam, which relieved most of her symptoms. Follow-up...

... 1985, rendered the patient unable to drive. Five days later, her neurologist documented ataxia with **coarse** rotatory and upbeating nystagmus. A magnetic resonance image of the brain was negative. Her symptoms...

# 11/3,K/7 (Item 7 from file: 442)

DIALOG(R) File 442:AMA Journals

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00031640

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Segmental Myoclonus; Clinical and Pharmacologic Study (ORIGINAL CONTRIBUTION)

JANKOVIC, JOSEPH Archives of Neurology October, 1986; 43: 1025-10311986; LINE COUNT: 00420 WORD COUNT: 05799

... 1 to 2 Hz). There was residual right Horner's syndrome, skew deviation, ocular dysmetria, coarse sustention and kinetic tremor of the arms, marked trunkal ataxia, dysphagia, sleep apnea, and mild...were outstretched or abducted.

A CT scan of the brain and spine and brain-stem auditory evoked potential (BAEP) were unremarkable. An EMG revealed denervation potentials in the C6 and C7 innervated muscles rapid (7 to 8 Hz) and less coarse resting pronation-supination tremor was noted in his right arm two years after the onset...

CITED REFERENCES:

...6, pp 153-176.

# 11/3,K/8 (Item 8 from file: 442)

DIALOG(R) File 442:AMA Journals

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00031420

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Relapsing Central and Peripheral Demyelinating Diseases; Unusual Pathologic Features (BRIEF COMMUNICATIONS)

DE LA MONTE, SUZANNE M.; ROPPER, ALLAN H.; DICKERSIN, G. RICHARD; HARRIS, NANCY L.; FERRY, JUDITH A.; RICHARDSON, EDWARD P.

Archives of Neurology

June, 1986; 43: 626-6291986;

LINE COUNT: 00187 WORD COUNT: 02588

... gag reflex was diminished. There was severe dysarthria, small athetoid movements of the fingers, a **coarse** cerebellar hand tremor, decreased limb tone, and slight weakness of the extremities. He was areflexic...

... cubic millimeter and a protein concentration of 45 mg/dL without oligoclonal bands. Brain-stem **auditory evoked potentials** showed wave I only, and pattern shift visual evoked potentials were normal. Motor nerve conduction...

# 11/3,K/9 (Item 9 from file: 442)

DIALOG(R) File 442: AMA Journals

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00031300

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Loss of Topographic Familiarity; An Environmental Agnosia (ORIGINAL CONTRIBUTION)

LANDIS, THEODOR; CUMMINGS, JEFFREY L.; BENSON, D. FRANK; PALMER, E. PRATHER

Archives of Neurology

February, 1986; 43: 132-1361986;

LINE COUNT: 00324 WORD COUNT: 04479

... left superior visual field during double simultaneous stimulation. Visual acuity was 20/40 OU. A coarse action tremor was present in both upper extremities, but there was no weakness and no...

... map of Switzerland without difficulty, but she could not recognize her doctors or nurses without **auditory** clues. She quickly learned to orient herself verbally ("the door of my room is the...

... hypodense area in the territory of the right posterior cerebral artery (Fig 2), and an **EEG** revealed slow-wave activity in the right posteruor temporal area.

One week after discharge, she...

#### 11/3,K/10 (Item 10 from file: 442)

DIALOG(R) File 442:AMA Journals

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00031134

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Auditory Brain-Stem Potentials With Unilateral Pontine Hemorrhage (ORIGINAL CONTRIBUTION)

HAMMOND, EDWARD J.; WILDER, B. JOE; GOODMAN, IRA J.; HUNTER, STEPHEN B.

Archives of Neurology

August, 1985; 42: 767-7681985;

LINE COUNT: 00062 WORD COUNT: 00868

...studies in animals, the actual neural sources, or even the laterality, of some components of auditory brain-stem evoked potentials in humans are uncertain. We studied these responses in a 56-year-old patient who... ... Ref. 1,2) the actual neural sources, or even the laterality, of some components of auditory brain-stem evoked potentials in humans are uncertain. (Ref. 3) Although anatomical and physiological studies in animals indicate that...

... lateral eye movements; there was intermittent ocular bobbing. He had a good down gaze, with **coarse** downbeat nystagmus. There was a marked right lower motor-neuron seventh nerve lesion. There was...

#### 11/3,K/11 (Item 11 from file: 442)

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00030965

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Methylphenidate Therapy for Aggression in a Man With Ring 22 Chromosome; Report and Literature Review (ORIGINAL CONTRIBUTION)

REEVE, ALISON; SHULMAN, SALLY A.; ZIMMERMAN, ANDREW W.; CASSIDY, SUZANNE B.

Archives of Neurology

January, 1985; 42: 69-721985;

LINE COUNT: 00181 WORD COUNT: 02500

...Hg, and CSF was acellular, with a protein level of 20 mg/dL. A waking EEG showed diffuse medium- to high-voltage slow-wave activity at 2 to 4 Hz and...

... scan was remarkable only for diffuse mild cortical atrophy and hydrocephalus ex vacuo. Brain-stem auditory evoked potentials showed mild sensory hearing loss bilaterally.

Phenytoin sodium was used parenterally to prevent further seizure activity. A diffuse erythematous... further defining the origin of this clinical variability.

Our patient was a tall man with **coarse** facies and a relatively small head. His facial features are characteristic of the nonspecific findings...

#### 11/3,K/12 (Item 12 from file: 442)

DIALOG(R) File 442: AMA Journals

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00030677

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# Familial Occurrence of Adult-type Neuronal Ceroid Lipofuscinosis (BRIEF COMMUNICATIONS)

TOBO, MIZUE; MITSUYAMA, YOSHIO; IKARI, KOICHI; ITOI, KOKICHI

Archives of Neurology

October, 1984; 41: 1091-10941984;

LINE COUNT: 00199 WORD COUNT: 02755

... received 20 ECT treatments. At age 32 he had a generalized convulsive episode, and an **EEG** revealed an epileptic pattern. At age 33 he received ECT 13 times for the exacerbated...

... treatments. During the last hospitalization, his mood was irritable and impulsive and he complained of **auditory** hallucinations. At age 46 he had several fainting attacks, following which he became stuporous and...

... weight of 32 kg. There was no evidence of congenital malformation. The skin was generally **coarse** and hypertrophic and a diagnosis of ichthyosis vulgaris was made. Findings from neurologic examination were...

# 11/3,K/13 (Item 13 from file: 442)

DIALOG(R) File 442: AMA Journals

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00030593

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# Hyperekplexia Exacerbated by Occlusion of Posterior Thalamic Arteries (BRIEF COMMUNICATIONS)

FARIELLO, RUGGERO G.; SCHWARTZMAN, ROBERT J.; BEALL, STEVEN S.

Archives of Neurology

April, 1983; 40: 244 - 2461983;

LINE COUNT: 00109 WORD COUNT: 01516

- ... except for nystagmus on right-sided lateral gaze. There was a severe exacerbation of the **coarse** tremor on intention, with the tremor perpendicular to the line of the movement. A heel...
- ... with an intraluminal plaque was noted at the origin of the left vertebral artery. Repetitive **EEG** recordings during the startle reaction demonstrated the occurrence of a high-voltage wave at the...
- ... time, there was a transient increase in the tremor of the upper extremity (Fig 2). Auditory brainstem evoked potentials on three different occasions were normal. Somatosensory evoked potentials (SEPs) performed on two separate occasions...

#### 11/3,K/14 (Item 14 from file: 442)

DIALOG(R) File 442: AMA Journals

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00029803

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# Unusual Neurotoxicity Associated With Amiodarone Therapy (SPECIAL ARTICLE )

PALAKURTHY, PRASAD R.; IYER, VASUDEVA; MECKLER, ROY J.

Archives of Internal Medicine

May, 1987; 147: 881-8841987;

LINE COUNT: 00189 WORD COUNT: 02613

... exclude posterior cranial fossa lesion (computed tomographic scan and vertebrobasilar arteriography) were normal. Brain-stem **auditory evoked potential** study showed mild prolongation of the I-V interpeak latency bilaterally. Discontinuation of amiodarone therapy...

...treatment was stopped.

Jaw Tremor. -- In two patients a peculiar lower jaw tremor with a coarse , rotary character resembling the parkinsonian jaw tremor was observed. The tremor was so disturbing in...

#### 11/3,K/15 (Item 15 from file: 442)

DIALOG(R) File 442: AMA Journals

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00026643

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#### An Information Processing Model for Schizophrenia (PERSPECTIVES )

CALLAWAY, ENOCH

Archives of General Psychiatry

March, 1982; 39: 339-3471982;

LINE COUNT: 00642 WORD COUNT: 08864

... tends to be reduced. (Ref. 11) This is referred to as the "averaged evoked potential ( AEP ) self-stimulation phenomenon." If an interval is introduced between key-press and click, the AEP increases as the press-click interval is lengthened. We expected schizophrenics to be

vulnerable to...

...to 400 ms. Just as pressing a key to initiate a tone interferes with the AEP to the tone, a weak prestimulus preceding a noise interferes with the blink response to...requires a conscious and voluntary effort to make the key-press response; by contrast, the AEP and the blink reflex occur without the subject necessarily intending to respond. Thus, slower reaction

... schizophrenics more often expect repetition, yet this is not what they report.

Amplitude of the AEP component P3 is generally larger the more unlikely the stimulus (ie, inversely correlated with a...fine-grained target data being procesed in the sustained "Y" system by the mask-activated, coarse, transient "X" system. (Ref. 36) Is the X system a candidate for membership in system...

#### VARIABILITY

Late components of the AEP in schizophrenia tend to be excessively variable. This seems to be an evoked response correlate...

... discussed as an electrophysiologic analogue of segmental set. (Ref. 44) Increased late variability of the **AEP** is also found in psychotic depression, (Ref. 45) but psychotic depression does not rule out the kind of disorder of information processing that interests us.

In contrast to late **AEP** variability, early **AEP** components in schizophrenia characteristically tend to be more stable. (Ref. 46) In averaging **brain** wave samples, more stable components yield larger average evoked potentials. Thus, late components in schizophrenia are...

#### 11/3,K/16 (Item 16 from file: 442)

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#### 00024370

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Incontinentia Pigmenti Achromians (Ito) (ORIGINAL CONTRIBUTION)

TAKEMATSU, HIDEAKI; SATO, SACHIKO; IGARASHI, MINORU; SEIJI, MAKOTO Archives of Dermatology
May, 1983; 119: 391-3951983;
LINE COUNT: 00184 WORD COUNT: 02548

11/3,K/17 (Item 1 from file: 444)

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#### 00106406

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Weekly Clinicopathological Exercises: Case 37-1989: A 60-year-old Man With Granulomatous Interstitial Nephritis Followed By Neurologic Disease (Case Records of the Massachusetts General Hospital)

Brown, Robert H., Jr.; Sobel, Raymond A. The New England Journal of Medicine Sep 14, 1989; 321 (11),pp 739-750

LINE COUNT: 00998 WORD COUNT: 13777

#### TEXT

...in the left eye, suggestive of bilateral conduction abnormalities in the visual system. Brain-stem auditory - evoked potentials revealed an absent wave V bilaterally, indicative of a conduction defect in the brain-stem...fiber bundles (central axonomas) are seen particularly in the left portion of the figure. The coarse brown material in the right lower portion is hemosiderin \*. \*\*FIGURE OMITTED\*\* \*Figure 6.-Central Axonomas...

11/3,K/18 (Item 2 from file: 444) DIALOG(R) File 444: New England Journal of Med. (c) 2003 Mass. Med. Soc. All rts. reserv.

00106328

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Weekly Clinicopathological Exercises: Case 34-1989: A 74-Year-Old Woman With Vertigo And An Adnexal Mass (Case Records of the Massachusetts General Hospital)

Koroshetz, Walter J.; Sullinger, Jana C. The New England Journal of Medicine Aug 24, 1989; 321 (8), pp 524-535 LINE COUNT: 00894 WORD COUNT: 12340

...in bed because of dizziness on getting up; she denied further headache or tinnitus. An audiographic study disclosed high-frequency hearing loss, believed consistent with sensorineural deafness in both ears, more marked in the right ear. An electroencephalogram was mildly abnormal with the patient awake because of occasional brief runs of low-amplitude...48 hours. On the 17th hospital day examination showed prominent downbeating nystagmus in addition to coarse nystagmus to the left side; the patient's dysarthria was more marked. \*Figure 3.-Computed...

...in all directions, and there was saccadic substitution for smooth pursuit movements in all directions. Coarse downbeating nystagmus was present in the primary position and converted to horizontal nystagmus in the...for maintenance of stable eye position (Ref. 10). On the 17th hospital day she had coarse vertical nystagmus that was downbeating in the primary position. Her saccadic eye movements were next...

(Item 3 from file: 444) 11/3,K/19 DIALOG(R) File 444: New England Journal of Med. (c) 2003 Mass. Med. Soc. All rts. reserv.

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Case 14-1988: A 40-Year-Old Man with Rapidly Progressive Blindness and Multiple Cranial-Nerve Deficits (Case Records of the Massachusetts General

#### Hospital)

Hedges, Thomas R. III; Schoene, William C.; Albert, Daniel M. The New England Journal of Medicine
April 7, 1988; 318 (14),pp 903-915.
LINE COUNT: 00863 WORD COUNT: 11918

#### TEXT

...antinuclear antibodies and rheumatoid factor and a serologic test for syphilis were negative. Brain-stem auditory evoked potentials showed evidence of dysfunction of the right acoustic nerve. Somatosensory evoked potentials, with the stimulus...weakness in the right iliopsoas, hamstrings, and tibialis anticus muscles. Sensation was intact throughout. A coarse intention tremor, with dysmetria, was noted on finger-to-nose testing bilaterally. The stance was...intracranial location is further suggested by signs of acoustic-nerve dysfunction seen on brain-stem auditory evoked potential recording, and there was evidence of right 12th-nerve damage when the tongue was observed...

11/3,K/20 (Item 4 from file: 444)
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00103843

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Case 34-1987: A 30-Year-Old Woman With An Ocular Motility Disturbance, Myopathy, and Hypocalcemia (Case Records of the Massachusetts General Hospital)

Wray, Shirley H.; Richardson, Edward P., Jr. The New England Journal of Medicine August 20, 1987; 317 (8),pp 493-501 LINE COUNT: 00690 WORD COUNT: 09534

#### TEXT

...fluid protein level in close to 100 percent of the cases, an abnormality of the **electroencephalographic** pattern in 83 percent, cerebellar signs in 69 percent, short stature in 63 percent, neurosensory **hearing** loss in 54 percent, and delayed puberty in approximately 33 percent. My statistics are similar...fiber itself. A Gomori trichrome stain showed that fibers of this kind were characterized by **coarse**, red-staining granules in the subsarcolemmal zone and within the muscle fiber (Fig. 2). Fibers...Dr. Richardson: The spongy change in these cases most closely resembles the rather **coarse** vacuolation of the white matter that characterizes the infantile disorders originally described by Canavan (Ref...

11/3,K/21 (Item 5 from file: 444)
DIALOG(R)File 444:New England Journal of Med.
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00102432

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Case 43 1986: An 11-Yearold Girl with a Rash, Ataxia, and Cranial-Nerve

# Palsies (Case Records of the Massachusetts General Hospital)

Ouellette, E.M.; Fienberg, R.
The New England Journal of Medicine
October 30, 1986; 315 (18),pp 1143-1154
LINE COUNT: 00883 WORD COUNT: 12195

#### TEXT

...A test of visual-evoked responses revealed an increased latency, but a test of brainstem- auditory - evoked responses demonstrated that they were normal. An electroencephalogram showed posterior slowing, more prominent on the right side. Tests for antinuclear antibodies and heterophil...neurologic examination the patient was alert and cooperative. The optic fundi and pupils were normal. Coarse nystagmus was observed on upward gaze; horizontal nystagmus was noted on right and left lateral...

11/3,K/22 (Item 6 from file: 444)
DIALOG(R)File 444:New England Journal of Med.
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00102366

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# Fatal Familial Insomnia and Dysautonomia with Selective Degeneration of Thalamic Nuclei (Medical Intelligence)

Lugaresi, Elio; Medori, Rossella; Montagna, Pasquale; Baruzzi, Agostino; Cortelli, Pietro; Lugaresi, Alessandra; Tinuper, Paolo; Zucconi, Marco; Gambetti, Pierluigi
The New England Journal of Medicine
October 16, 1986; 315 (16),pp 997-1003
LINE COUNT: 00467 WORD COUNT: 06451

# TEXT

...condition worsened; he was no longer able to report his dreams, his motor activity became **coarse** and tremulous, and urinary urgency, dysphagia, and transient diplopia appeared...10 cycles per second, intermingled with sporadic diffuse theta activity, was present in the first **electroencephalogram** ( **EEG** ), obtained seven months after the onset of the disease. The alpha activity slowly spread to...
...became less reactive, and was finally unreactive to painful stimuli. In the terminal stages, the **EEG** showed background activity of 7 cycles per second that progressively flattened and was mixed with...

# 11/3,K/23 (Item 1 from file: 149)

DIALOG(R) File 149:TGG Health & Wellness DB(SM) (c) 2003 The Gale Group. All rts. reserv.

01308713 SUPPLIER NUMBER: 11561808 (USE FORMAT 7 OR 9 FOR FULL TEXT) Lead and minor hearing impairment.

Schwartz, Joel; Otto, David Archives of Environmental Health, v46, n5, p300(6)

Sept-Oct, 1991

PUBLICATION FORMAT: Magazine/Journal ISSN: 0003-9896 LANGUAGE: English

... constant to make the resulting data as normally distributed as possible. In view of the **coarseness** of the data, robust regression techniques seemed more appropriate than simple linear regression. We used ...auditory function. Evidence of slowed nerve conduction in the auditory pathway, indexed by the brainstem **auditory evoked potential** (BAEP), has been observed in lead-exposed monkeys [9] and is consistent with our previous...

...Pratt H, Goldsher M, Rosen S, Shenbau R, Linn S, Mor A, Barkai A. A Auditory brainstem evoked potential in asymptomatic lead-exposed subject. J Laryngol Otol 1986; 100:1031-36.
[11] Llille F...

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Set
        Items
                Description
                EVOK???(2N)(POTENTIAL? ? OR RESPON???)
S1
         4701
                AUDIO? OR AUDITORY OR HEARING OR AURAL? OR SOUND? ?
        95502
S2
                ELECTROENCEPHALOGRA? OR ELECTRO() ENCEPHALOGRA? OR EEG OR B-
s3
         8562
             RAIN(2N)WAVE? ?
S4
          191
                AEP
S5
        10913
                COARS?
S6
         1692
                S1(3N)S2 OR S2(S)S3 OR S4
S7
           34
                S5 AND S6
S8
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                RD (unique items)
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     23
                S10 NOT PD>19960911 -
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